SOLOMESHCH, I.A. (Petrozavodsk)

Eigenvalues of certain degenerating elliptic equations. Mat. sbor. 54 no.3:295-310 Jl '61. (MIRA 14:8)
(Eigenvalues) (Differential equations)

SOLOMESHCH, I.A.

Asymptotic behavior of the eigenvalues of bilinear forms related to some elliptic equations which degenerate at the boundary. Dokl.AN SSSR 144 no.4:727-729 Je '62. (MIRA 15:5)

1. Predstavleno akademikom V.I.Smirnovym.
(Differential equations) (Forms, Bilinear)

L 43734-65 EWT(d) IJP(c)
ACCESSION NR: AR5009480 S/0124/65/000/003/A010/A010

9
B

SOURCE: Ref. zh. Mekhanika, Abs. 3A81

AUTHOR: Mosyagin, V.V.; Solomeshch, M.A.

TITLE: The dynamics of rectilinear motion of a variable mass point

CITED SOURCE: Uch. zap. Petrozavodskogo un-ta, v. 11, no. 5, 1963 (1964), 56-59

TOPIC TAGS: variable mass point, rectilinear motion calculation, Meshcherskiy equation

TRANSLATION: A relativistic generalization of Meshcherskiy's equation

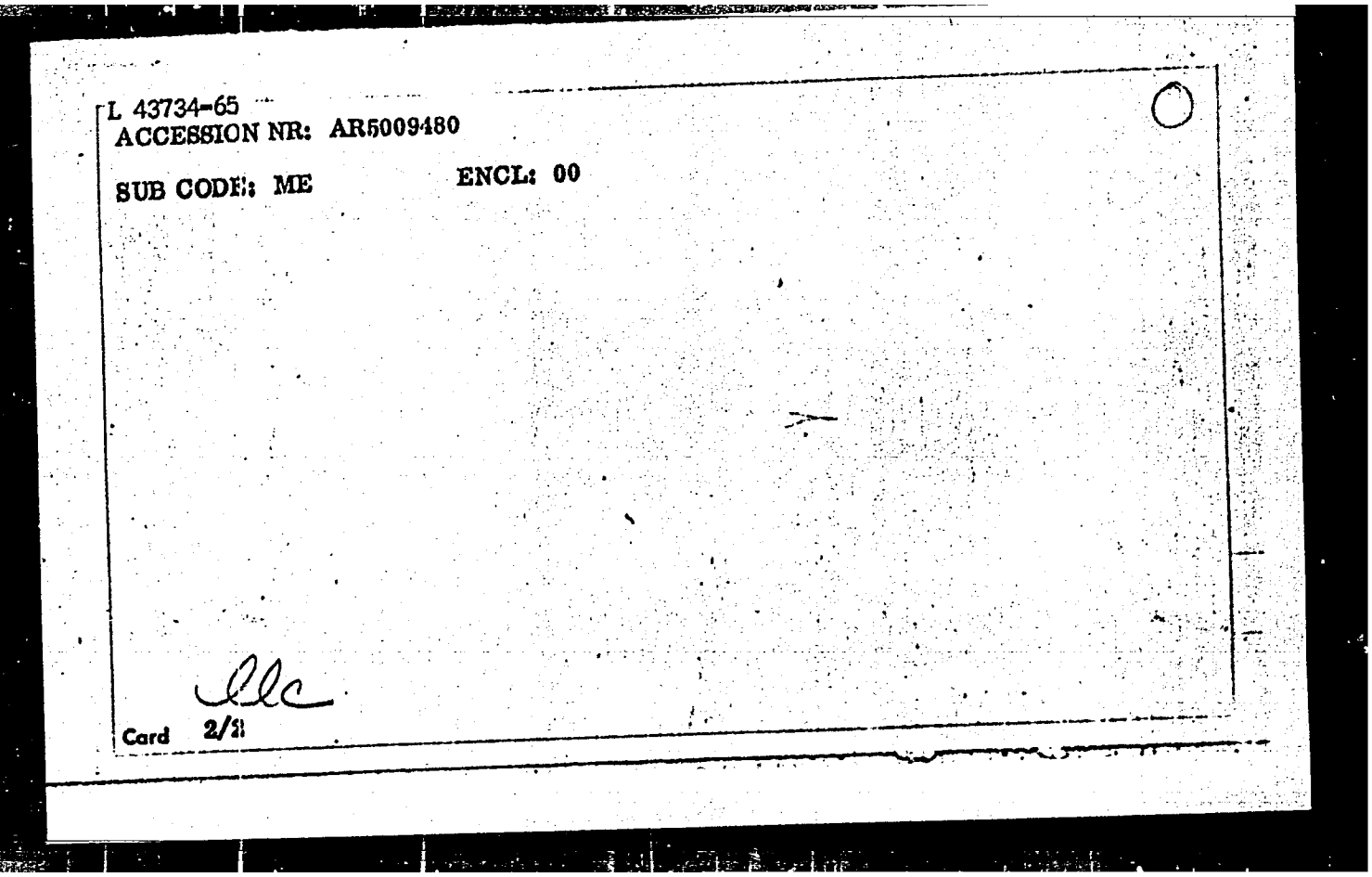
$$a^3M\frac{dV}{dt}=-v_r\frac{dM}{dt}a+F \qquad (1)$$

where $a=[1-(v^2/c^2)]^{-1/2}$ and F is the external force was derived for the rectilinear motion of a variable mass point. The author considers special cases, in which the equations are reduced to the quadratures:

$$F=Ma[(x),\ M=M_0e^{-\alpha t},\ F=M\varphi(v),\ \varphi(v)\leq 0, \qquad (2)$$

M.I. Yefimov.

Card 1/2



L 43734-65
ACCESSION NR: AR5009480

SUB CODE: ME ENCL: 00

Card 2/2

L 57503-65 EWT(d)/EWP(w)/EWA(d) EM

ACCESSION NR: AP5014096 UR/0055/65/000/003/0070/0076 12
539.3 11
B

AUTHOR: Solomeshch, M. A.

TITLE: An inequality in plastic flow theory 26

SOURCE: Moscow. Universitet. Vestnik. Seriya 1. Matematika, mekhanika, no. 3, 1965, 70-76

TOPIC TAGS: plasticity

ABSTRACT: The author shows that for a flow law which is associative with the von Mises load function, the inequality expressing D. C. Drucker's postulate is a result of this law if the tangent modulus is nonincreasing. Let h(T) be the strengthening function. Theorem: If on each of the given load paths $\sigma_{ij}(t)$ and $\sigma'_{ij}(t)$ the number of passages from elastic deformation to plastic is finite and strengthening is such that there exists a continuous derivative

$$\frac{d}{dT}Th(T) > 0, \qquad (1)$$

then the inequality

$$\int_0^t [\sigma_{ij}(t) - \sigma'_{ij}(t)][\dot{e}_{ij}(t) - \dot{e}'_{ij}(t)]\,dt > 0 \qquad (2)$$

Card 1/2

L 57503-65
ACCESSION NR: AP5014096

holds for any $t^* \geq 0$. He gives an example of non-satisfaction of this postulate with increasing tangent modulus. Orig. art. has 3 figures and 15 formulas.

ASSOCIATION: Kafedra teorii uprugosti, Moskovskiy gosudarstvennyy universitet (Department of Elasticity Theory, Moscow State University)

SUBMITTED: 05Jun64 ENCL: 00 SUB CODE: AS, MA

NO REF SOV: 004 OTHER: 000

Card 2/2

SOLOMIKIN, O.P. [Solomykin, O.P.]; ARAV, Ya.I.

The improved "Khersonets'" harvester. Mekh. sil'. hosp. 13 no.8:4-5 Ag '62. (MIRA 15:7)

1. Glavnyy konstruktor Khersonskogo kombaynovogo zavoda im. Petrovskogo (for Solomikin). 2. Nachal'nik spetsial'nogo konstruktorskogo byuro Khersonskogo kombaynovogo zavoda im. Petrovskogo (for Arav).
(Harvesting machinery) (Corn (Maize))

SOLOMIN, A.F., inzhener.

Mechanized unloading of side-loading trucks in the Saratov Road Machinery Station No.43. Avt.dor.18 no.7:14 N '55. (MLRA 9:4)
(Saratov--Loading and unloading)

SOLOMIN, A.F., inzhener.

Efficient method for using scrapers and graders together. Avt. dor. 19 no.1:24 Ja '56. (MLRA 9:5)
(Road machinery)

SOLOMIN, A.F., inzhener.

Soil-gravel mix. Avt.dor.19 no.3:28 Mr '56. (MLRA 9:7)
(Road materials)

SOLOMIN, A.F., inzhener.

Improve the organizational structure of road machinery stations. (MLRA 9:10)
Avt.dor.19 no.8:27-28 Ag '56.
(Road machinery)

SOLOMIN, Anatoliy Fedorovich; PETROV-SEMICHEV, Yu.A., redaktor; KOGAN, F.L., tekhnicheskiy redaktor

[Work practices of the Saratov road machinery station] Opyt raboty Saratovskoi mashinodorozhnoi stantsii. Moskva, Nauchno-tekhn.izd-vo avtotransp.lit-ry, 1957. 56 p. (MLRA 10:9)
(Saratov region--Road construction)

Solomin, F.

GRYUNBERG, Aleksandr Ivanovich; SOLOMIN, Anatoliy Fedorovich; MALINOVSKIY, I.I., red.; MAL'KOVA, N.V., tekhn.red.

[[Economic accountability in road machinery stations] Khozialstvennyi raschet mashinodorozhnoi stantsii. Moskva, Nauchno-tekhn.izd-vo avtotransp. lit-ry, 1957. 90 p. (MIRA 11:4)
(Road construction--Accounting)

DMITRIYEV, A.D.; SOLOMIN, A.F.; MESHCHERYAKOV, L.I.

Moving a frame-type reinforced concrete bridge. Avt. dor. 21 no.2:14 F '58. (MIRA 11:2)
(Bridges, Concrete)

SOLOMIN, A.F.

Unloading device mounted on the DT-54 tractor. Avt. dor. 21 no.2:25 F '58. (MIRA 11:2)

(Loading and unloading)

BURLAY, P.F.; GENRITSY, G.Ye.; SOLOMIN, A.F.; SLAVUTSKIY, A.K., kand. tekhn. nauk, retsenzent; ANDRYEV, O.V., kand. tekhn. nauk, retsenzent; ALEKSEYEV, A.P., inzh., red.

[Reference book for workers in the construction of rural roads] Spravochnoe posobie stroiteliu sel'skikh dorog. Moskva, Izd-vo "Transport," 1964. 331 p. (MIRA 17:5)

GALKIN, Mikhail Fedorovich; SOLOMIN, Anatoliy Nikolayevich; SANDOMIRSKIY, Mark Moiseyevich; SHAKHOV, Mikhail Alekseyevich; ZHERMUNSKAYA, L.B., inzh., red.; FREGER, D.P., red.izd-va; BELOGUROVA, I.A., tekhn. red.

[Nickel-free 5KhGV steel for forging dies] Beznikelevaia stal' 5KhGV dlia shtampov pri goriachei shtampovke. Leningrad, 1961. 14 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Metallovedenie i termicheskaia obrabotka, no.7) (MIRA 14:12)
(Steel alloys--Testing) (Dies (Metalworking))

SHCHERBAKOV, K.F., kand.tekhn.nauk; SOLOMIN, A.N., aspirant

Problems of threshing sunflowers and deseeding castor-oil plants. Trakt. i sel'khozmash. no.11:15-17 N '64. (MIRA 18:1)

1. Rostovskiy Institut sel'skokhozyaystvennogo mashinostroyeniya.

SOLOMIN, A.N.

Studying the process of the feeding of the plant mass to rotary receiving units. Trakt. i sel'khozmash. no.7:24-25 Jl '65. (MIRA 18:7)

1. Rostovskiy institut sel'skokhozyaystvennogo mashinostroyeniya.

SOLOMIN, A. N.

SOLOMIN, A.N.

Treatment of snake bite with novocaine block and oil balsam antiseptics. Trudy AMN SSSR 24 no.2:63-66 '53. (MLRA 7:7)

(SNAKE BITES, therapy,
*procaine nerve block with oil balsam antiseptics)
(PROCAINE, therapeutic use,
*snake bites, nerve block with oil balsam antiseptics)
(ANESTHESIA, REGIONAL, in various diseases,
*nerve block, procaine, in snake bite, with oil balsam antiseptics)

SOLOMIN, A.N.

Giant anal papilloma. Khirurgiia no.8:75-76 Ag '54. (MLRA 7:11)

(PAPILLOMA,
anus, giant)
(ANUS, neoplasms,
papilloma, giant)

DEGTYAREV, P.D.; SOLOMIN, A.N. (Rostov-na-Donu)

Transthoracic approach to the upper thoracic sympathetic ganglia.
Vop. neirokhir. 21 no.6:43-44 N-D '57. (MIRA 11:2)
(NERVOUS SYSTEM, SYMPATHETIC--SURGERY)
(CHEST--SURGERY)

SOLOVIL, A.Ye. (Rostov-na-Donu)

Treatment of nerve trunks in amputation. Eksp. khir. 3 no.6:50 N-D '58.
(NERVES--SURGERY) (AMPUTATION) (MIRA 12:1)

SOLOMIN, A.N., kand.med.nauk

Treatment of phantom pains with intravenous novocaine. Sov.med. 22 no.3:119-123 Mr '58. (MIRA 11:4)

(PHANTOM LIMB,
pain, ther., procaine, intravenous admin. (Rus))
(PROCAINE, ther. use
pain in panthom limb, intravenous admin. (Rus))

SOLOMIN, A.N., kand.med.nauk, (Rostov-na-Donu)

Penetrating knife wound of the skull and brain. Kaz.med.zhur. no.3:90 My-Je '63. (MIRA 16:9)
(SKULL--WOUNDS AND INJURIES)
(BRAIN--WOUNDS AND INJURIES)

[illegible]

Use of a prosthesis prepared from AKR-7 plastic for replacement of a complicated defect of the anterior parietal sections of the skull. Vop. neirokhir. 28 no.6:47 N-D '64.

(MIRA 18:4)

SOLOMIN, A.N., podpolkovnik meditsinskoy sluzhby, kand. med. nauk

Rare case of combined injury to the anterior parabasal regions of the skull and brain. Voen.-med. zhur. no.6:60-61 '64. (MIRA 18:5)

SOLOMIN, N.V., doktor tekhn. nauk; SOLOMIN, A.N.

Inelastic deformation of glass and ceramic products under their own weight during annealing. Stek. i ker. 22 no.8:19-21 Ag '65. (MIRA 18:9)

1. A. S. SOLOMIN

2. USSR (600)

4. Bee Culture

7. Good method of observing how bees are wintering. Pchelovodstvo 29 no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

Br. Abs.

81-4 Glass, Ceramics

[illegible] A. V. Solomin (*Stek. Keram. Prom.*, 1947, No. 4, 20; *Brit. Ceram. Abs.*, 1948, 130A).—The refractory is made of glass-bonded corundum and thermite corundum. The rate of corrosion by alkali sulphates falls as the % of Al_2O_3 in the corundum rises. A test, in which specimens of the corundum and fireclay were rotated in a crucible containing molten glass, showed that the resistance of the corundum to glass was 7-8—8 times > that of the fireclay.

R. B. CLARKE.

SU[illegible]SHIY, A.V., professor; GOLUBEV, F.G.; [illegible]MIN, A.V.

Hydrogenation of cottonseed oil with Cu-Al catalyst in a carrying agent. Masl.-zhir. prom. 17 no.8:6-9 Ag '51. (MLRA 10:9)

1. Kazanskiy gosudarstvennyy universitet imeni V.I.Lenina.
(Cottonseed oil) (Hydrogenation)

NAZARENKO, M.F.; SVIRIDENKO, V.A.; SOLOMIN, A.V.

Use of the PMT-3 microdurometer to determine the caking ability of ceramic bodies. Izv.AN Kazakh. SSR Ser.gor.dela, met. i stroimat. no.2:30-33 '54. (MLRA 9:6)
(Ceramic materials--Testing) (Hardness)

SOLOMIN, A. V.

SOLOMIN, A. V.- "On the intermediate stages in vapor-phase oxidation of monoalkyl benzenes on lead vanadate". Alma-Ata, 1955. Acad Sci Kazakh SSR, Inst of Chemical Sciences. (Dissertation for the Degree of Candidate of Chemical Sciences,)

SO: Knizhnaya Letopis' No. 46, 12 November 1955. Moscow

Solomin, A. V.

Oxidation of organic compounds. XII. Intermediate stages of catalytic oxidation of some monoalkylbenzenes in gas phase. S. R. Rafikov, B. V. Suvorov, and A. V. Solomin. *Kataliticheskoe Gidrirovanie i Okislenie, Akad. Nauk Kazakh. S.S.R., Trudy Konf.* 1955, 241–51; cf. *C.A.* 50, 4872*e*.—Yield-temp. curves for various products of oxidation of alkylbenzenes are shown for air oxidation in the presence of mild V catalysts at 300–450° with 0.3–0.4 sec. contact time. MePh, EtPh and cumene were examd. The possible schemes of stepwise oxidation are shown. The possible oxidation products: AcPh, BzCHO, BzH, BzOH, C_6H_6, PhOH, benzoquinone, and maleic anhydride were also subjected to oxidation. BzOH, maleic anhydride and quinone were found to be substantially stable. At temp. under 350° almost the only products are those of incomplete oxidation; at higher temp. these products decline in concn.; above 390° the oxidation is complete.

3

10
6
0
0

PM

RAFIKOV, S.T.;SUVOROV, B.V.; SOLOMIN, A.V.

Oxidation of organic compounds. Report No.14: Intermediate stages of incomplete oxidation of benzene in the vapor phase in the presence of tin vanadate. Izv.AN Kazakh.S.S.R.Ser.khim. no.1:58-66 '57. (MLRA 10:5)

(Oxidation) (Benzene) (Tin vanadate)

AUTHORS Kazakova, N.D., Solomin, A.V. 32-8-49/61
Cutsalyuk, V.G.

TITLE A Device for the Determination of the Paraffin Content in Mineral Oil and in Mineral Oil Products.
(Pribor dlya opredeleniya parafinov v neftyakh i nefte-produktakh.)

PERIODICAL Zavodskaya Laboratoriya 1957, Vol. 23, Nr 8, pp.996-996 (USSR)

ABSTRACT The device described in this paper serves the purpose of the quantitative determination of solid paraffin hydrocarbons which are separated by freezing out. The device consists of a molybdenum glass container of about 500 ml content. The container is conically shaped (towards its bottom) and has an opening at the bottom which is firmly sealed by means of a stopper made out of the same type of glass. This stopper is provided with a handle which extends throughout the entire container right to the top and to the outside. The container is placed upon a funnel adapted for this purpose which has a filter and is firmly mounted on the bottom of the cooling vessel. The mineral oil or mineral oil product to be investigated is poured into the vessel and is exposed to freezing temperature.

CARD 1/2

A Device for the Determination of the Paraffin Content in Mineral Oil and in Mineral Oil Products. 32-8-49/61

By pulling out the stoppe (by the handle) the bottom of the container is opened and the liquid passes through the funnel into the collecting vessel, which is located below the bottom of the cooling vessel. The frozen particles are held back by the filter. By washing out the container also such particles as still adhere to the walls are directed into the filter, and the whole system is cleaned. The collecting vessel below the cooling vessel is then exchanged and the funnel is washed out with hot benzol. In this way the particles frozen in on the filter are liberated and are led into the benzol solution in the exchanged collecting vessel. By destillation of the solution benzol is removed and the remaining paraffin is weighed. There is 1 figure and 1 table.

ASSOCIATION: Institute of the Academy of Sciences of the Kazakh SSR (Institut khimicheskikh nauk Akademii nauk Kaz SSR)

AVAILABLE: Library of Congress.

CARD 2/2

PA - 3120

On Vapor Phase Oxidation of Styrene and α-Methylstyrene on Tin Vanadate.

temperatures does not surpass 1,25 mol per mol of the oxidized carbon. This points to the fact that the low-molecular-products chiefly occur at the cost of the burning away of the lateral groups. The results obtained give rise to the assumption that the oxidation of the styrene and the α-methylstyrene in the vapour phase with tin vanadate in the primary phases takes place in the same direction as the oxidation in the condensation-phase with or without catalyzers. In the case of styrene a thermal decay with formation of benzaldehyde and formaldehyde is probable, and in the case of methylstyrene a thermal decay with formation of acetophenone and formaldehyde. Experimental results confirm this assumption. At higher temperatures no acetophone or benzaldehyde could be detected in the reaction-products.
(2 tables and 3 citations from Slavic publications.)

ASSOCIATION: Institute for Chemical Science of the Academy of Science of the Kasakstan SSR.

PRESENTED BY: Arbuzov B.A., 3.10. 1956.
SUBMITTED: 29.9. 1956.
AVAILABLE: Library of Congress.

CARD 2/2

SOLOMIN, A. V.

AUTHORS: Solomin, A. V., Suvorov, B. V., Rafikov, S.R. 79-1-20/63

TITLE: The Oxidation of Organic Compounds (Okisleniye organicheskikh soyedineniy). XV. On the Oxidation of Ethyl Benzene in the Vapor-Phase State Over Tin Vanadate (XV. O parofaznom okislenii etilbenzola na vanadate olova).

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 1, pp. 133-138 (USSR).

ABSTRACT: The oxidation of alkyl benzenes with a secondary x-carbon atom in the vapor-phase state had not been sufficiently investigated. Only one paper had been published on this subject in which it is pointed out that on passage of ethylbenzene vapors in a mixture with air only benzoic acid is formed. The yield at 270-280° C amounted to 4%. The aim of the present paper was an exact investigation of the fundamental rules governing this reaction, special attention in the oxidation being paid to the intermediate and final products. Some of the intermediate products were oxidized under equal conditions. The obtained experimental results show that the vapor-phase oxidation of ethylbenzene with air takes a very complicated course and according to the prevailing conditions leads to

Card 1/3

The Oxidation of Organic Compounds. XV. On the Oxidation of Ethyl Benzene in the Vapor-Phase State Over Tin Vanadate. 7/81-25/83

the formation of different oxygen-containing compounds. Thus the authors beside benzoic acid also found benzaldehyde, acetophenone, quinone, maleic anhydride, CO and CO_2 and quantitatively determined their amounts. The dependence of the yield of some of the enumerated reaction products on temperature is represented in diagram.1. A scheme of the fundamental direction of the vapor-phase oxidation of ethylbenzene over tin vanadate was suggested which is based on the data of the peroxide theory and on the theory of the radical-chain processes. The assumption was uttered that the oxidation of ethylbenzene might simultaneously proceed in several parallel directions, in main as well as in side directions. Each of those represents a multistage process of a gradual decomposition of the carbon skeleton, with a subsequent formation of a large number of by-products. The final stage of each of these directions consists of the formation of products of the completed oxidation. There are 5 figures and 12 references, 10 of which are Slavic.

ASSOCIATION: Institute for Chemical Sciences AN Kazakh SSR (Institut khimicheskikh nauk Akademii nauk Kazakhskoy SSR).

Card 2/3

The Oxidation of Organic Compounds. XV. On the Oxidation of Ethyl Benzene in the Vapor-Phase State Over Tin Vanadate. 79-1-28/63

SUBMITTED: December 3, 1956

AVAILABLE: Library of Congress

Card 3/3

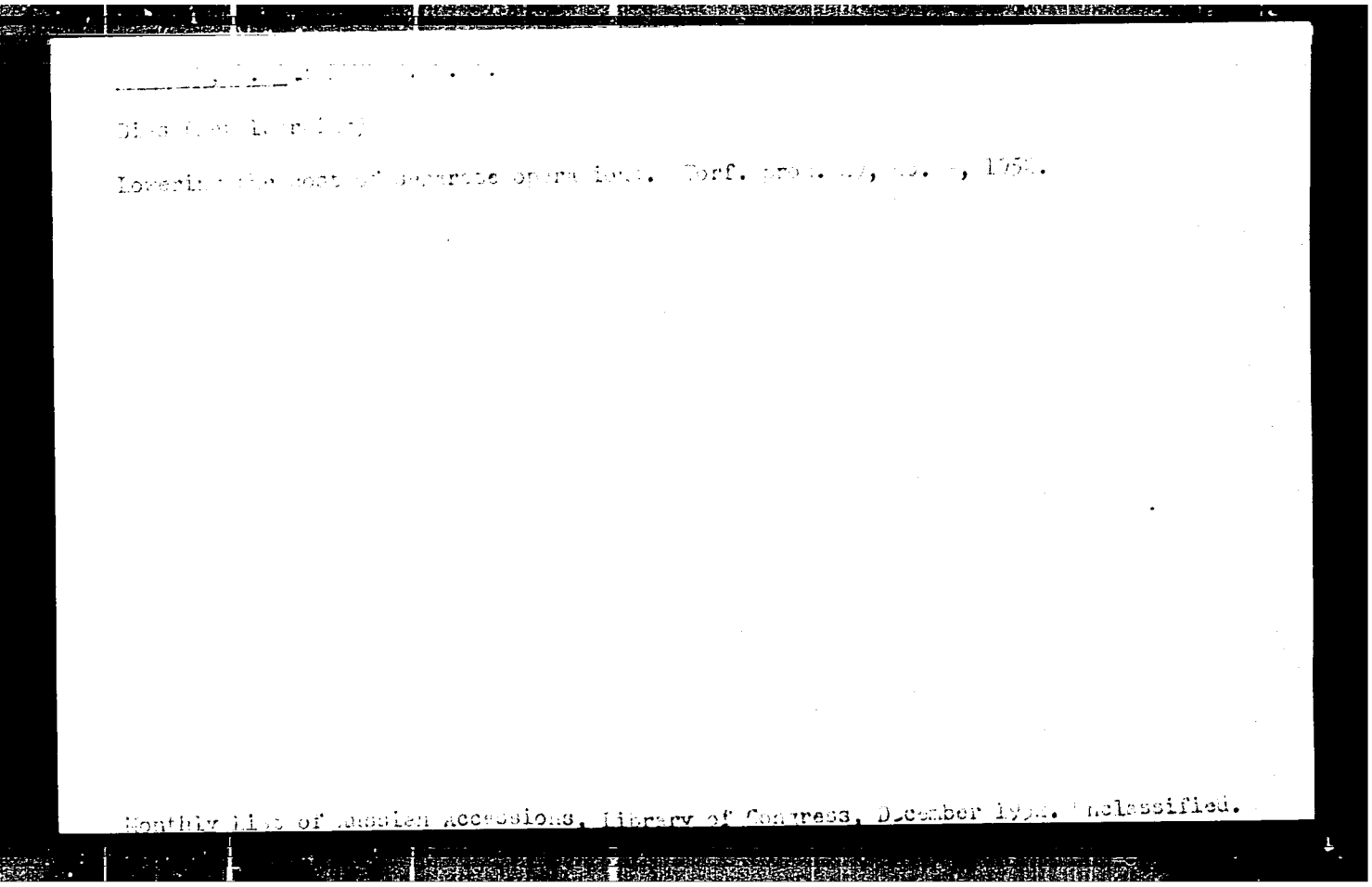
1. Chemistry 2. Organic compounds-Oxidation

MANUKOVSKAYA, L. G.; SOLOMIN, A. V.; SUVOROV, B. V.; RAFIKOV, S. R.

Continuous method of production of terephthalic acid by the liquid phase oxidation of m-xylene. Neftekhimia 2 no.4:531-535 Jl-Ag '62. (MIRA 15:10)

1. Kazakhskiy gosudarstvennyy sel'skokhozyaystvennyy institut i Institut khimicheskikh nauk AN KazSSR, Alma-Ata.

(Terephthalic acid) (Xylene)



Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

ZOLOTIN, N.A.

Some characteristics of [illegible] of nanosecond [illegible] circuits of nanosecond range. [illegible] AN SSSR no.6 Prib. tekh. eksp. 1957 (MIRA 10:10) nauk no.2:30-33 '56.

1. Institut radiofiziki i elektroniki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

ACCESSION NR: AP4040015 S/0288/64/000/001/0085/0088

AUTHOR: Solomin, B. A.

TITLE: Mercury-screened helical delay lines

SOURCE: AN SSSR. Sib. otd. Izv. Seriya tekhnicheskikh nauk, no. 1, 1964, 85-88

TOPIC TAGS: delay line, helical delay line, mercury screened delay line

ABSTRACT: In order to improve the frequency-phase characteristics of a helical delay line, it was prepared from an insulated wire and completely immersed in mercury. Thus, the theoretical equivalent of a short high-attenuation coaxial line with a predominantly frequency-type distortion was obtained. The upper frequency limit of a mercury-screened line (with a tolerable frequency distortion) is tentatively put at 500-1,000 mc, which is 3-5 times as wide as a nonscreened-helical-line band. "Thanks are due to Doctor of Physico-Mathematical Sciences R. V. Gostrem for his attention to this project." Orig. art. has: 1 figure and

Card 1/2

ACC NR: AP7001220 SOURCE CODE: UR/0141/66/009/006/1227/1229

AUTHOR: Solomin, B. A.

ORG: Scientific-Research Institute of Radiophysics, Gor'kiy University (Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete)

TITLE: Transformation of video-pulse spectrum in switched-parameter lines

SOURCE: IVUZ. Radiofizika, v. 9, no. 6, 1966, 1227-1229

TOPIC TAGS: parametric converter, switched parameter line, signal propagation

ABSTRACT: "Nonresonance" parametric transformation of video pulses (shortening pulse time, increasing pulse height) described in M. Otyka's (13th Symposium URSI, Holland, 1965) and H. Weinstein's (IEEE Trans., CT-12, 157, 1965) articles were experimentally verified by the author. In two distributed-parameter lines, running capacitance or inductance was electronically (in

 UDC: 621.391.144

KRYUKOV, P.A.; SOLOMIN, G.A.

Method of measuring the oxidation-reduction potential of waters and rocks. Gidrokhim.mat. 28:215-221 '59. (MIRA 12:9)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g.Novocherkassk.
(Oxidation-reduction reaction) (Water, Underground)
(Potentiometric analysis)

SOLOMIN, G.A.

Preliminary treatment of electrodes for measuring oxidation-reduction potentials. Gidrokhim.mat. 28:222-229 '59. (MIRA 12:9)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g.Novocherkassk.
(Electrodes, Platinum) (Polarization (Electricity))

SOLOMIN, G.A.

Nomogram for computing activity coefficients. Gidrokhim.mat. 28: 230-232 '59. (MIRA 12:9)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g.Novocherkassk.
(Nomography (Mathematics)) (Water--Analysis)
(Ionization)

SOLOMIN, G. A. Cand Chem Sci — (diss) "Oxidation-Reduction State of Waters and Soils in the Region of Construction of the Stalingrad Hydroelectric Station," Novocherkassk, 1960, 16 pp, 200 copies (Hydrochemical Institute, AS USSR) (KL, 47/60, 98)

FESENKO, N.G. (Novocherkassk); SOLOMIN, G.A. (Novocherkassk)

Method for fast voluminal determination of Fe^{+++}, Fe^{++}, and Al^{+++} in ferric and mixed coagulants. Vod. i san. tekh. no.1:16-17 Ja '61. (MIRA 14:9)

(Water--Purification)

KRYUKOV, P.A.; SOLOMIN, G.A.; GOREMYKIN, V.E.; TSYBA, N.P.; MANIKHIN, V.I.; LEBEDEVA, Ye.M.

Oxidation-reduction state of waters and rocks in the region of the construction site of Stalingrad Hydroelectric Power Station. Gidrokhim. mat.31:142-163 '61. (MIRA 14:3)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g. Novocherkassk.
(Stalingrad Hydroelectric Power Station region--Water, Underground)
(Oxidation-reduction reaction) (Geochemistry)

SOLOMIN, G.A.

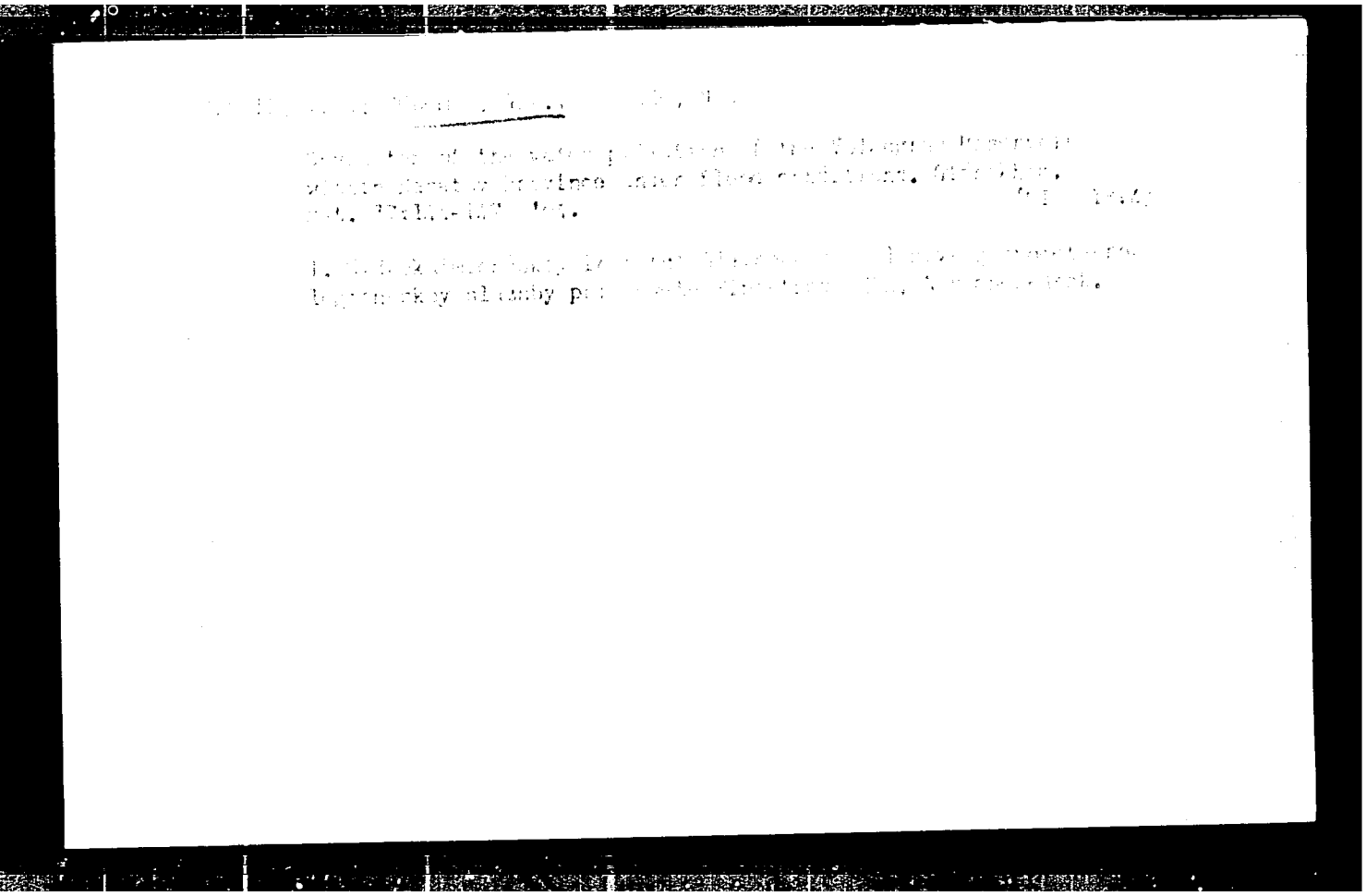
Apparatus for oxidation-reduction potential measurement in sedimentary rocks. Gidrokhim. mat. 31:209-210 '61. (MIRA 14:3)

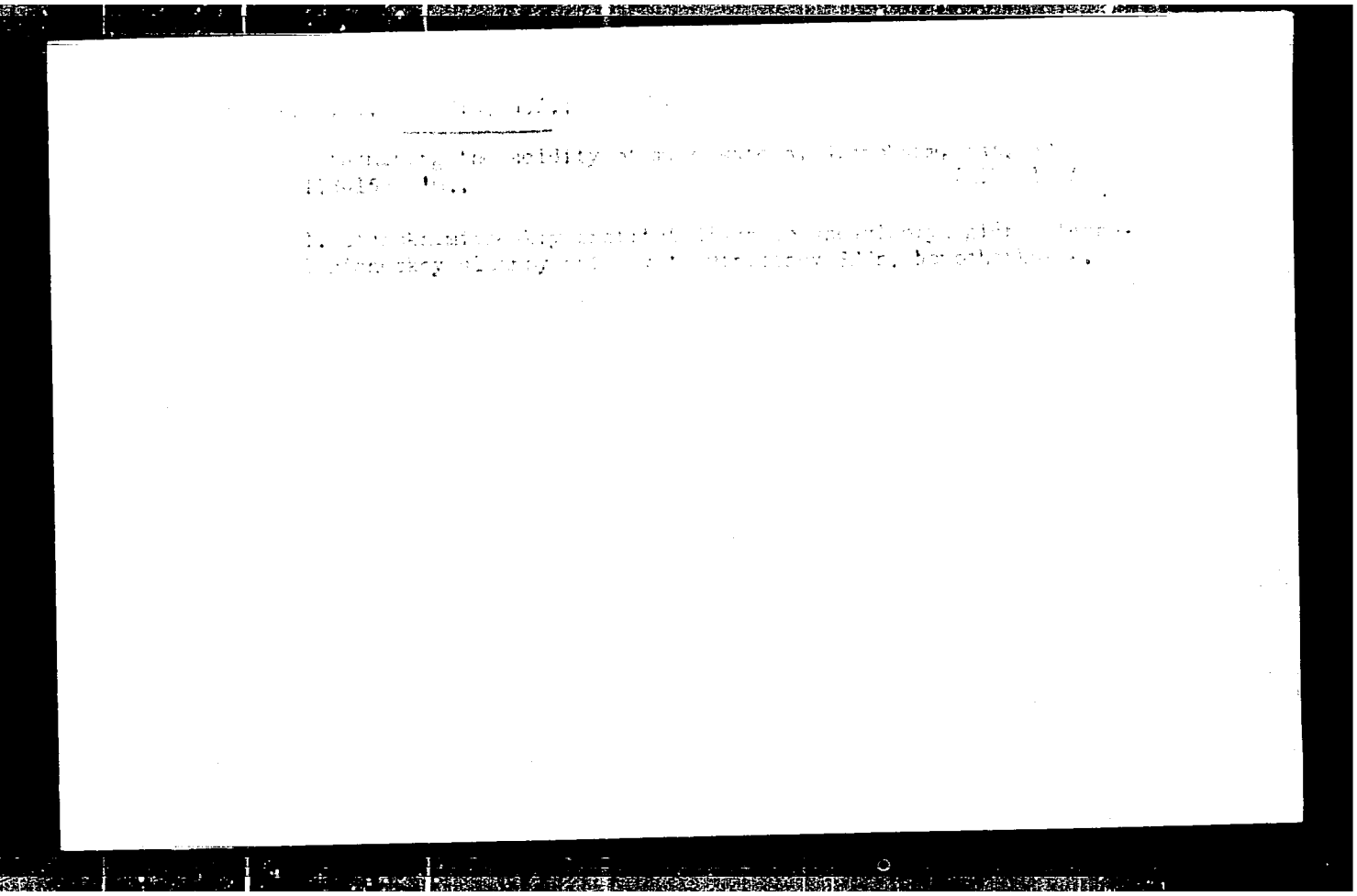
1. Gidrokhimicheskiy institut Akademii nauk SSSR, g. Novocherkassk.
(Rocks, Sedimentary—Analysis)(Oxidation-reduction reactions)
(Electrochemistry)

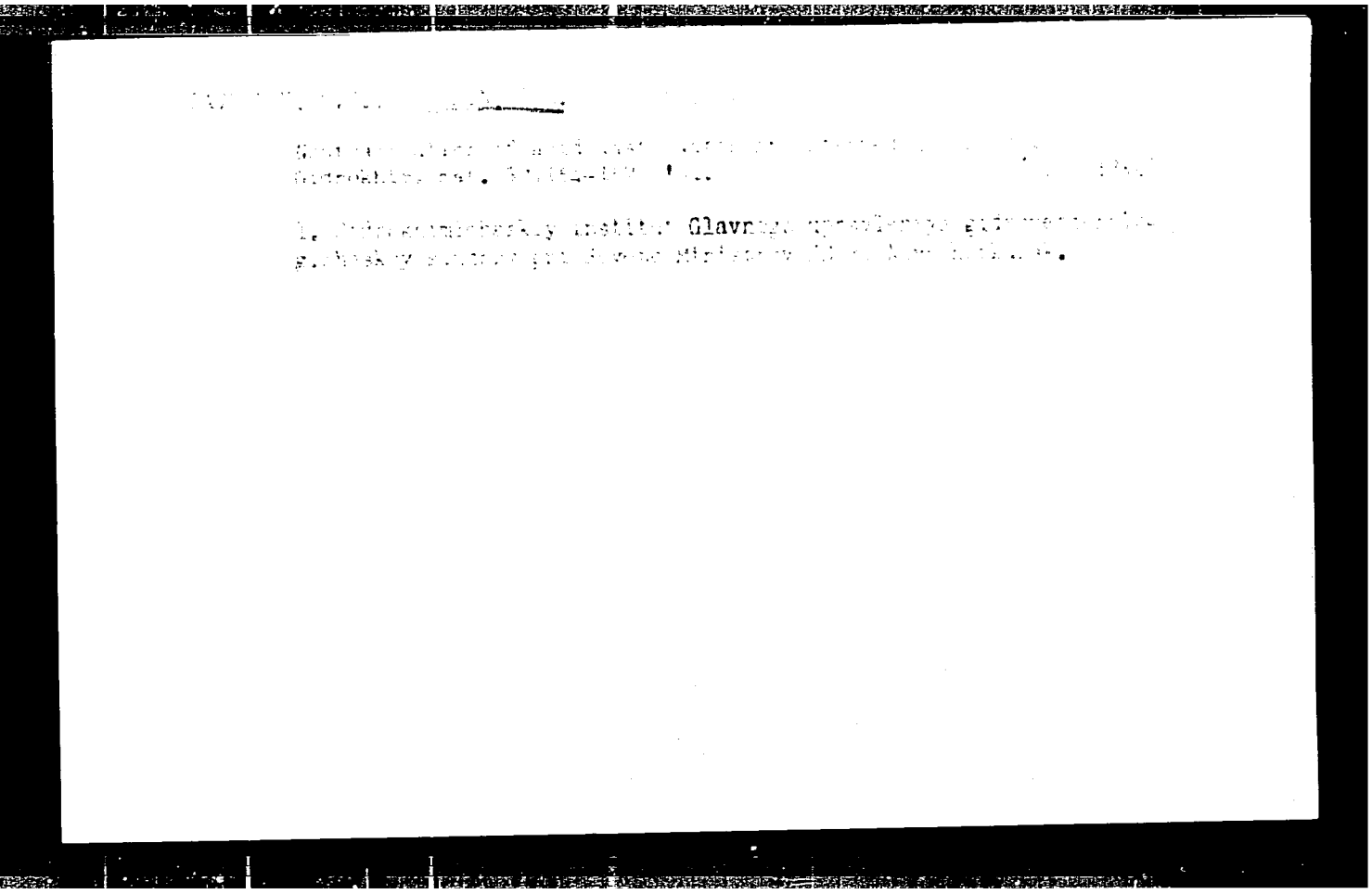
[redacted], G.I., [redacted], G.S.

[redacted] oxide from platinized porcelain. Gidrokhim.mat. 36:169-171 '62. (MIRA 18:11)

1. Gidrokhimicheskiy institut, Novocherkassk. Submitted November 18, 1961.







...MIN, Gennadiy Anatol'yevich; FESH.KO, N.G., kand. khim. nauk, otv. red.; DRAGUNOV, E.S., red.

[Methods for determining the redox potential and p^H of sedimentary rocks] K metodike opredeleniia okislitel'no-vosstanovitel'nogo potentsiala i p^H osadochnykh porod. Moskva, Izd-vo "Nauka," 1964. 86 p. (MIRA 17:7)

SOLOMIN, G.I., aspirant

Materials for the maximum permissible concentration of dinyl in the air. Gig. i san. 26 no.5:3-8 My '61. (MIRA 15:4)

1. Iz kafedry kommunal'noy gigiyeny TSentral'nogo instituta usovershenstvovaniya vrachey.
(AIR--POLLUTION) (PHENYL ETHER--PHYSIOLOGICAL EFFECT)

SOLOMIN, G.I., aspirant

Hygienic evaluation of dinil as an air pollutant. Pred.dop. kontsent.atmosf.zagr. no.6:146-164 '62. (MIRA 15:9)

1. Iz kafedry kommunal'noy gigiyeny TSentral'nogo instituta usovershenstvovaniya vrachey.
(BIPHENYL--PHYSIOLOGICAL EFFECT) (AIR--POLLUTION)

L 11374-67 EWT(1) SCTB DD/GD

ACC NR: AT6036499 SOURCE CODE: UR/0000/66/000/000/0066/0068

AUTHOR: Bizin, Yu. P.; Gorban', G. M.; Zinov'yev, V. M.; Pilipyuk, Z. I.; Sidorov, K. K.; Solomin, G. I.; Shirskaya, V. A.; Yablochkin, V. D.

ORG: none

TITLE: Changes in several physiological indices of the organism in a gas medium formed by polymer decomposition [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 66-68

TOPIC TAGS: toxicology, polymer degradation, central nervous system, liver, closed ecological system, air pollution

ABSTRACT: The combined effect on animal organisms of the chemical substances formed by the degradation of some 14 polymers at temperatures in excess of 40° C was studied in a 25-day experiment.

Analysis of air from the chamber containing 80 laboratory animals showed the following: acrylonitrile, 2.8 ± 1.7 mg/m^3; aldehydes, 0.02 ± 0.01 mg/m^3; ammonia, 4.6 ± 1.3 mg/m^3; acetone 1.07 ± 0.6 mg/m^3; dibutylphthalate, 3.7 ± 0.4 mg/m^3; sulphur dioxide, 1.77 ± 0.8 mg/m^3; carbon monoxide,

Card 1/3

L 11374-67

ACC NR: AT6036499

19.1 ± 1.3 mg/m^3; hydrocarbons, 600 ± 218 mg/m^3; hydrogen chloride, 2.46 ± 1.2 mg/m^3; epichlorhydrine, 0.33 ± 0.08 mg/m^3; ethyl acetate, 1.61 ± 0.6 mg/m^3; and ethylene glycol, 0.7 ± 0.4 mg/m^3.

Carbon dioxide content varied up to a maximum of 1%, oxygen content was 21%, and the relative humidity varied from 60 to 80%.

Blood studies conducted on the animals included erythrocyte count, leukocyte count, reticulocyte count, and hemoglobin determinations, as well as duration of bleeding, rate of coagulation, prothrombin time, thrombocyte count, and blood viscosity. Ability to synthesize hippuric from benzoic acid was taken as an index of the functional state of the liver.

In addition, observations were made of behavior and general conditions of the animals, dynamics of weight changes, tolerance to physical stress, and oxygen requirement. Relative weights of internal organs were determined.

The experimental animals were observed preceding, during, and for 14 days after the experiment.

Prolonged continuous exposure of the animals to the chemical substances liberated by the polymers produced nonspecific functional shifts.

Card 2/3

CNS effects included subcortical irritation and weakening of cortical subordination function. This resulted in intersection of extensor and flexor motor chronaxy curves, lowered susceptibility to brain stem hexanol narcosis, and increased tolerance to physical stress.

Peripheral blood studies showed increased erythrocyte, hemoglobin, and thrombocyte counts.

These CNS and peripheral blood shifts were unstable and nonspecific, and should be regarded as an adaptation reaction of the organism to the presence of gases released by polymer materials. This interpretation is supported by full restoration of the altered functions and indices to the initial state within 14 days after the end of the experiment.

It is concluded that the investigated polymers can be used in space cabins so long as the gases they liberate are scrubbed from the cabin air before they attain the maximum permissible concentration for small closed compartments. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

SOLOMIN, K.V., kand.tekhn.nauk.

Spiral separators. TSvet.met.27 no.3:12-16 My-Je '54. (MLRA 10:10)
(Ore dressing)

SOLOMIN, K.V.

6763 AERE-Lib/Trans-661
THE ENRICHMENT OF SANDS IN SPIRAL SEPARATORS.
K. V. Solomin. Translated by R. D. Lowde from Gornyi Zhur., No. 6, 61-4(1955). 9p.
Results indicate that spiral separators are completely successful for enrichment of sands holding scattered grains of valuable minerals of specific gravity above 4. (auth)

SOLOMIN, K.V., kandidat tekhnicheskikh nauk; CHUGUNOV, A.D., gornyy inzhener

Jigging machine and concentration table operation on the dredge. Gor.zhur. no.9:42-46 S '55. (MLRA 8:8)
(Ore dressing)

SOLOMIN, Konstantin Vasil'yevich; TROITSKIY, A.V., retsenzent; VERIGO, K.N., redaktor; YEZDOKOVA, M.L., redaktor izdatel'stva; KARASEV, A.I., tekhnicheskiy redaktor

[Spiral concentrators] Vintovye separatory. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 103 p. (MLRA 9:10)

(Separators (Machines)) (Ore dressing)

BOLOMIN, K.V., kandidat tekhnicheskikh nauk.

Use of ore concentrator-classifiers in hydraulic placer mining.
TSvet.met.29 no.1:30-34 Ja '56. (MLRA 9:6)
(Hydraulic mining) (Ore dressing)

137-1958-1-101

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 16 (USSR)

AUTHOR: Solomin, K. V.

TITLE: Investigation of Placer Sands for the Purpose of Evolving a Technology for Concentration (Issledovaniye peskov rossypey dlya razrabotki tekhnologii obogashcheniya)

PERIODICAL: Kolyma, 1957, Nr 4, pp 20-23

ABSTRACT: A method of investigating placer sands (S) is described in detail. The investigations should follow the following procedure: study of the composition of the S and the type of ore; study of the susceptibility of the S to milling; formulation of efficient sand milling technology; development of optimal conditions for the operational cycle of the milling equipment. Engineering investigations of the S should begin during the preliminary prospecting. The decisive factors in the milling of sands are: the susceptibility of S to washing, their grain size, shape and the degree to which they have been rounded, as well as the shape and grain size of the ore particles, their specific gravity, and coefficient of friction, the susceptibility of the Au and Pt to amalgamation, their magnetic susceptibility and electrical

Card 1/2

Investigation of Placer Sands (cont.)

conductivity, the composition of the minerals in the heavy fraction, and the quantity thereof in the S. Study of the composition of the sands and of their susceptibility to milling should be performed in the milling laboratories of geological prospecting expeditions. The detailed engineering investigations should be performed in scientific research institutes.

A. Sh.

1. Mining Engineering—USSR 2. Ores—Analysis 3. Mines—Evaluation

Card 2/2

SOLOMIN, K.V., kand.tekhn.nauk

SVM-1200 industrial screw separator. Gor.zhur. no.8: 62-63 Ag '60. (MIRA 13:8)

1. Irgiredmet, Irkutsk.
(Separators(Machines)) (Ore dressing)

SOLOMIN, Konstantin Vasil'yevich; MELIK-Stepanova, A.G., otv. red.; ROMANOVA, L.A., red. izd-va; SABITOV, A., tekhn. red.

[Processing mineral placer deposits] Obogashchenie peskov rossypnykh mestorozhdenii poleznykh iskipaemykh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 398 p. (MIRA 14:11)
(Hydraulic mining) (Ore dressing)

PHASE I BOOK EXPLOITATION SOV/4438

Vzaimozamenyayemost' i tekhnicheskiye izmereniya v mashinostroyenii; mezhvuzovskiy sbornik, no. 2 (Interchangeability and Engineering Measurements in Machinery Manufacture; University Collection, No. 2) Moscow, Mashgiz, 1960. 542 p. Errata slip inserted. 5,000 copies printed.

Ed.: A.I. Yakushev, Doctor of Technical Sciences, Professor; Editorial Council: A.I. Yakushev (Chairman); B.A. Tayts, Doctor of Technical Sciences, Professor; Ye. I. Volodin, Docent; N.N. Ganchev, Docent; P.N. Goberman, Docent; and O. Ya. Yegor'yev (Scientific Secretary), Engineer; Reviewer: N. Ye. Yegorov, Doctor of Technical Sciences, Professor; Eds.: B.A. Tayts; V.P. Korotkov, Candidate of Technical Sciences, Docent; L.N. Vorontsov, Candidate of Technical Sciences; Managing Ed. for Literature on Machine and Instrument Construction (Mashgiz): N.V. Pokrovskiy, Engineer; Ed. of Publishing House: G.F. Kochetova; Tech. Ed.: T.F. Sokolova.

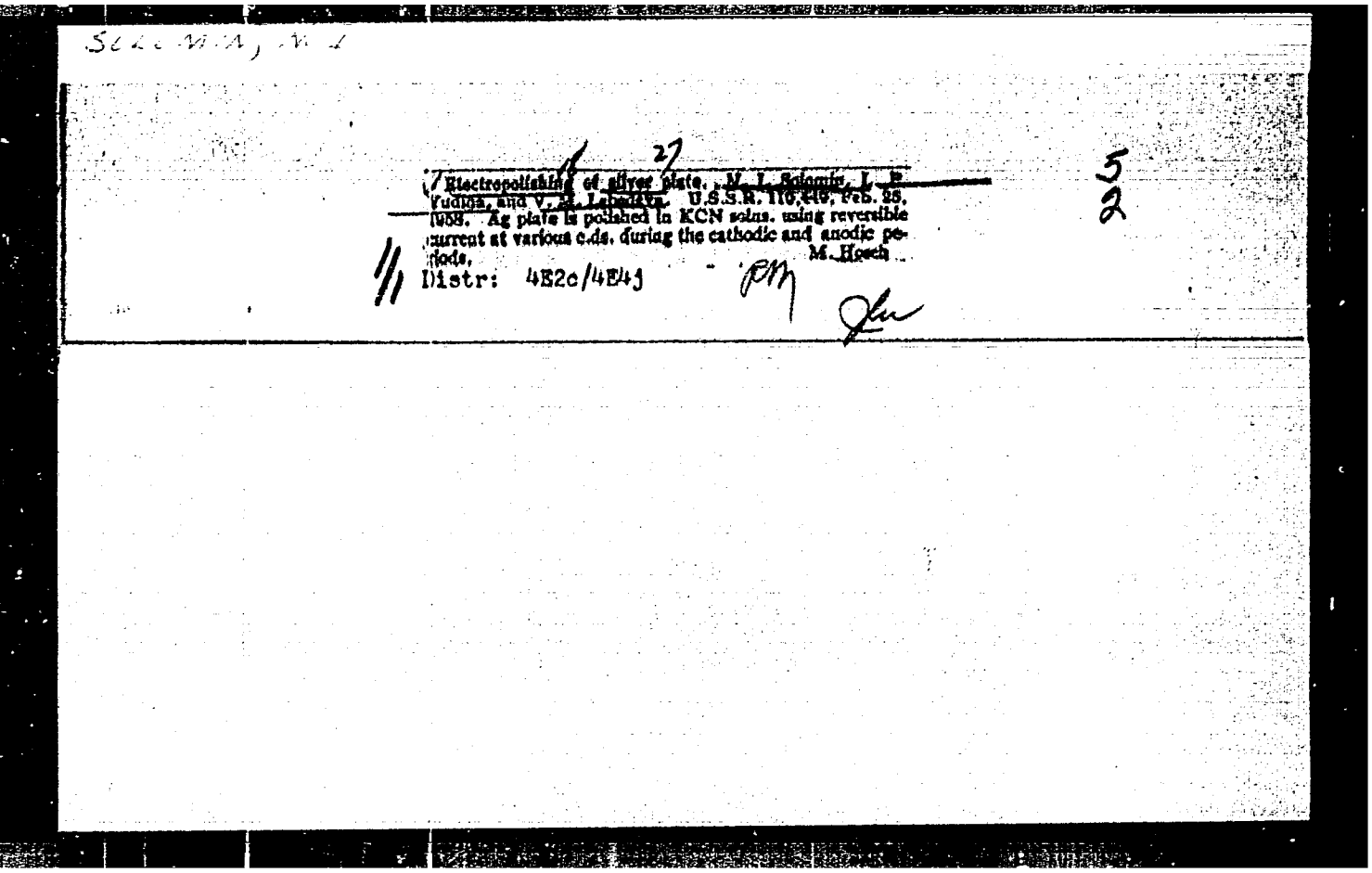
PURPOSE: This collection of articles is intended for scientific and technical personnel dealing with problems of interchangeability and engineering measurements in the machine and instrument industries.

Card 4/7

SINYANSKIY, V.I.; SOLOMIN, L.Ya.; IONESKU, P.D. [Ionescu, P.D.]

Life of forsterite refractories in forge furnace hearths. Ogneupory 22 no.12:568-571 '57. (MIRA 12:3)

1. Nauchno-issledovatel'skiy metallurgicheskiy institut v Bukhareste (for Sinyanskiy, Solomon). 2. Metallurgicheskiy zavod im. 23-go avgusta Rumynskaya Narodnaya Respublika (for Ionesku).
(Rumania--Forging) (Refractory materials)



Electropolishing of silver plate. M. I. Solomin, I. P. Fudina, and V. A. Lebedeva. U.S.S.R. 116,419, Feb. 25, 1958. Ag plate is polished in KCN solns. using reversible current at various c.ds. during the cathodic and anodic periods.
M. Hoech

Distr: 4E2c/4E4j

MATS, A.S., podpolkovnik meditsinskoy sluzhby; SOLOMIN, N.N., podpolkovnik meditsinskoy sluzhby

Some observations in anicteric leptospirosis. Voen.-med.zhur. no.6: 76-78 Je '51. (MLRA 9:9)
(LEPTOSPIROSIS)

UGRYUMOV, B.L., polkovnik meditsinskoy sluzhby; SOLOMIN, N.N., podpolkovnik meditsinskoy sluzhby

Clinical and epidemiological characteristic of a natural reservoir with two infections. Voen.-med. zhur. no.4:54-59 Ap '56. (MIRA 9:9)
(EPIDEMIOLOGY) (KIDNEYS--DISEASES)
(ENCEPHALITIS)

SOLOMIN, N.N., podpolkovnik meditsinskoy sluzhby

Etiology and epidemiology of infections nephroseonephritis in the cis-Ural region. Voen.-med.zhur. no.7:40-43 Jl '57. (MIRA 11:1)
(EPIDEMIC HEMORRHAGIC FEVER
epidemiol. & etiol. (Rus))

SOLOMIN, N.N.

Some aspects of the dysentery problem in the light of the variability of the causative agents. Zhur.mikrobiol.epid. i immun. 29 no.2:118-119 F '58. (MIRA 11:4)

(SHIGELLA DYSENTERIAE, variability (Rus)

SOLOMIN, N. N., BELYAYEV, P. A., BEZHUKOV, B. M., BURGANSKIY, B. K., KAPLINSKIY, M. B. and MATS, A. S.

"Possible Vectors of Diseases with Natural Reservoirs in the Urals."

Tenth Conference on Parsitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Sverdlovsk

SOLOMIN, M. M., BELYAYEV, P. A., BUSHKOV, V. M., BUNGANSHIY, B. EH., KAPLINSHIY, M. B., MATS, A. S.

"Epidemiological characteristics of diseases with Natural Foci in the Ural Mountains." p. 21

Desyatoye Soveshchaniye po parazitologicheskim problemam i prirodnoochagovym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

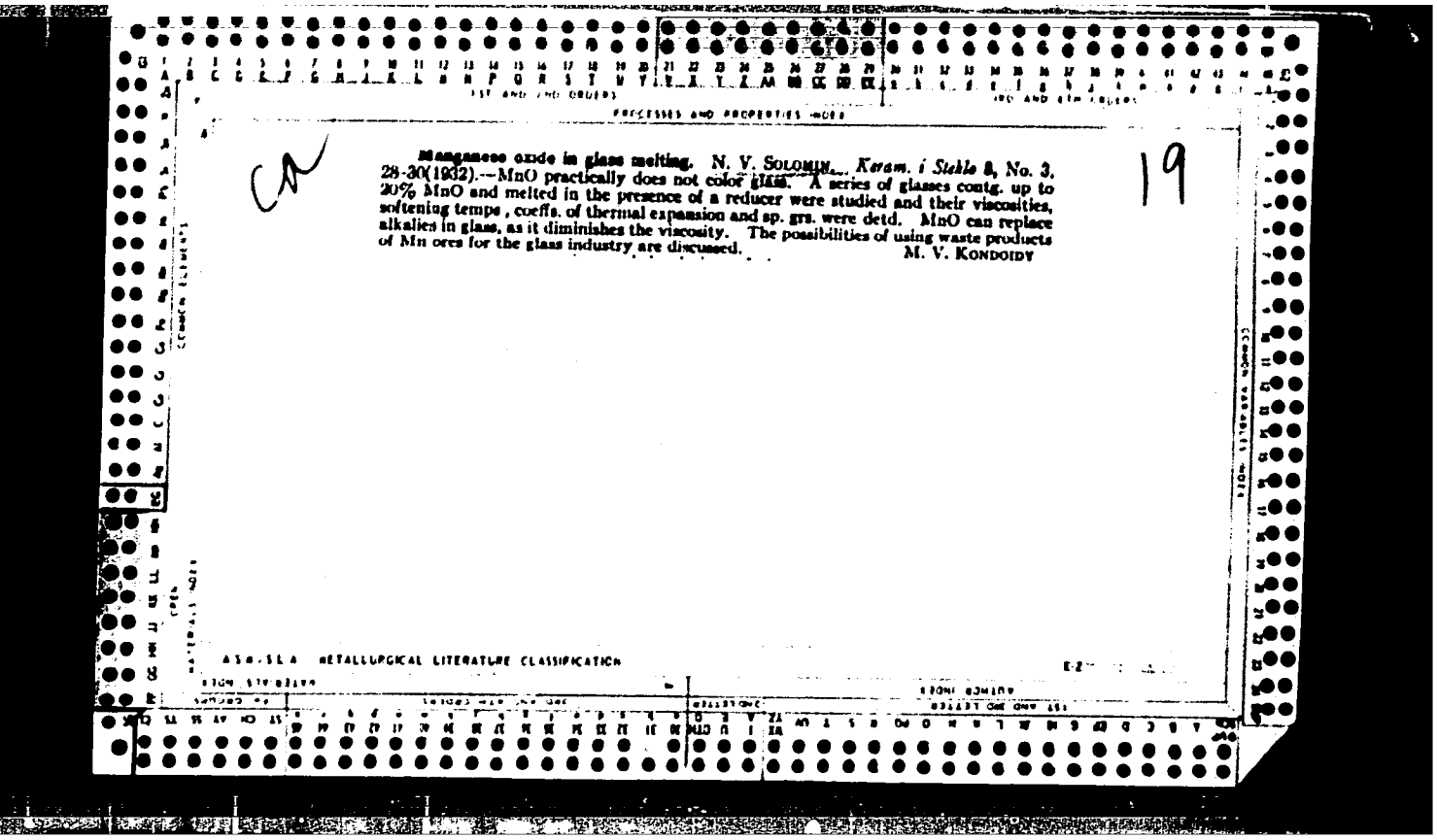
SOLOMIN, N.N.; BURGANSKIY, B.Kh.

Characteristics of the etiological structure of current forms of dysentery and their significance in the epidemiology and laboratory diagnosis; author's abstract. Zhur.mikrobiol.,epid.i immun. 30 no.12:111 D '59. (MIRA 13:5)
(DYSENTERY BACILLARY etiol.)

SOLOMIN, N.N.; PIONTKOVSKAYA, S.P.

Ectoparasites of rodents from a focus of hemorrhagic fever in the western part of the Ural Mountain region. Zool. zhur. 39 no.5:678-682 My '60. (MIRA 13:10)

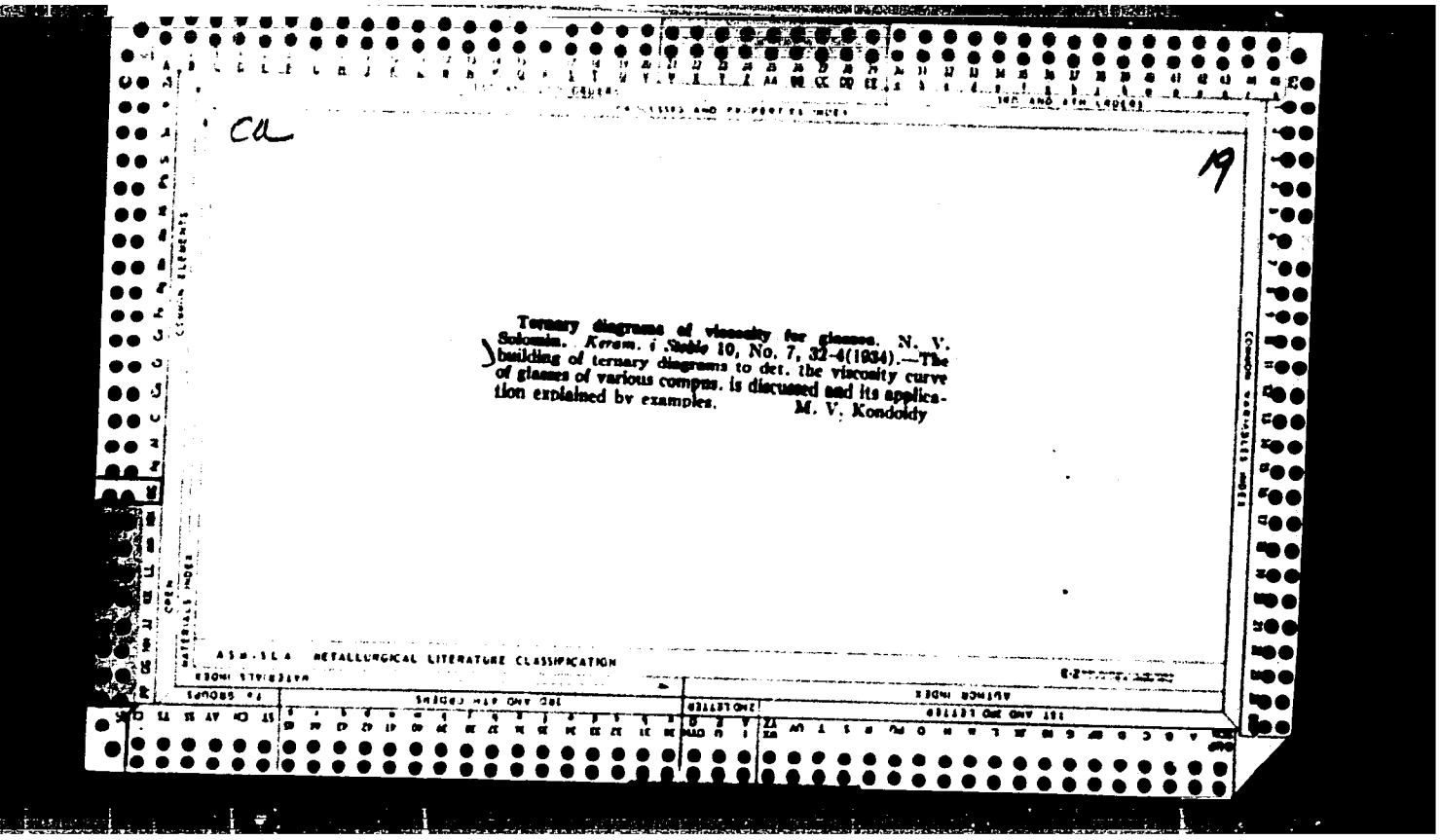
1. Sanitary-Epidemiological Detachment, and the Department of Infections of Natural Nidality, Institute of Epidemiology and Microbiology, U.S.S.R. Academy of Medical Sciences, Moscow.
(Kizner District--Rodents as carriers of diseases)
(Parasites--Rodents)



Manganese oxide in glass melting. N. V. Solomin. *Keram. i Stekło* 8, No. 3, 28-30(1932).—MnO practically does not color glass. A series of glasses contg. up to 20% MnO and melted in the presence of a reducer were studied and their viscosities, softening temps., coeffs. of thermal expansion and sp. grs. were detd. MnO can replace alkalies in glass, as it diminishes the viscosity. The possibilities of using waste products of Mn ores for the glass industry are discussed.
M. V. Kondoidy

19

ASM/SLA METALLURGICAL LITERATURE CLASSIFICATION

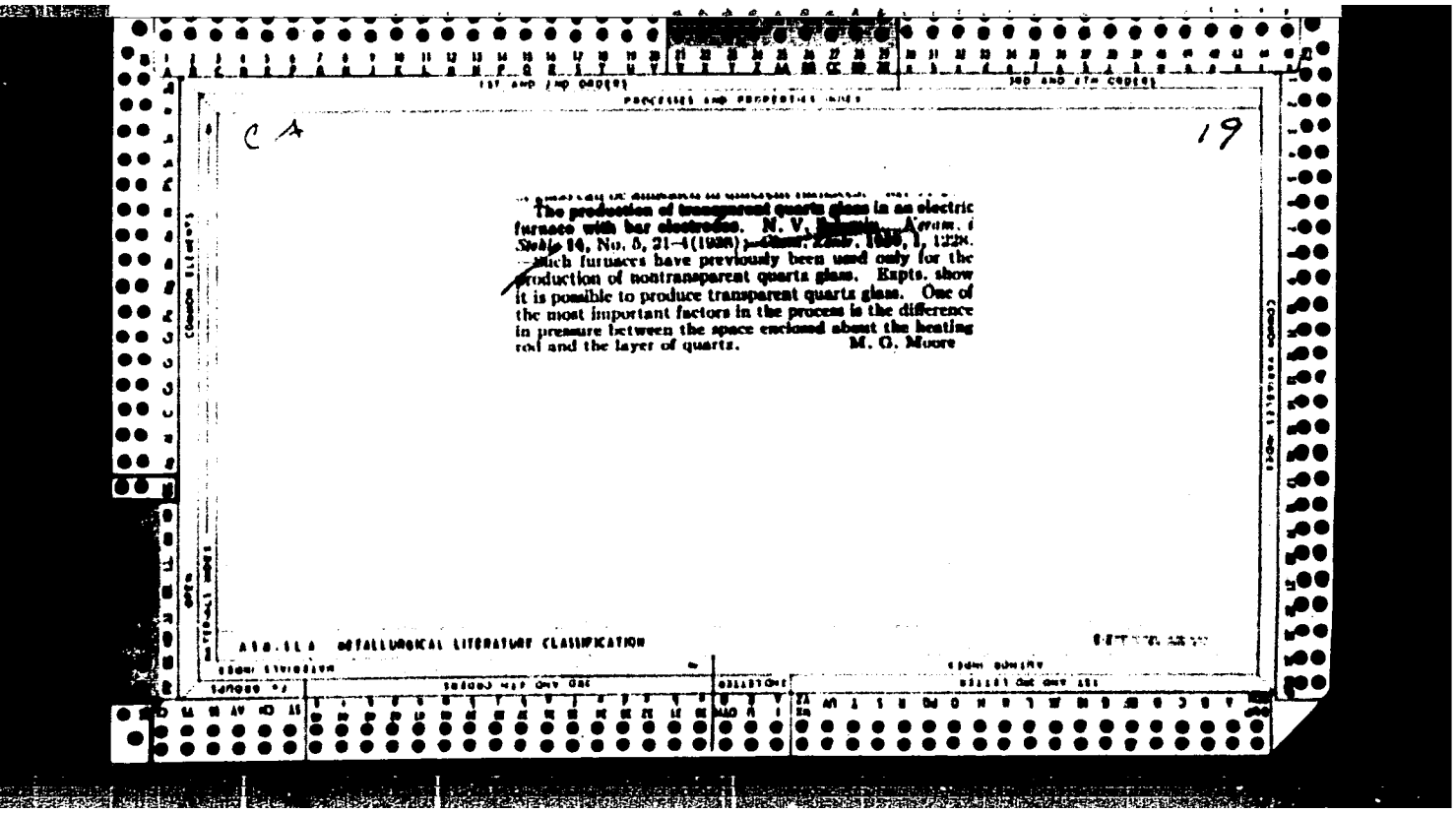


Ternary diagrams of viscosity for glasses. N. V. Solomin. *Keram. i Steklo* 10, No. 7, 32-4(1934).—The building of ternary diagrams to det. the viscosity curve of glasses of various compns. is discussed and its application explained by examples. M. V. Kondoidy

19

Certain properties of glasses in the system Li_2O-Na_2O-B_2O_3. N. V. Solomin. *J. Tech. Phys.* (U. S. S. R.) 8, 523-7(1938).—The thermal expansion of 6 ternary mixts. is measured between 20° and 100°. It decreases with increasing alkali content and on substituting Li for Na. The temp. at which the viscosity reaches 10^{13} poises rises with the ratios alkali boron and Li Na. J. J. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA 19

The production of transparent quartz glass in an electric furnace with bar electrodes. N. V. [illegible]. *Avtom. i Stekla* 10, No. 5, 21–4 (1938); *Chem. Zentr.* 1939, I, 1228. Such furnaces have previously been used only for the production of nontransparent quartz glass. Expts. show it is possible to produce transparent quartz glass. One of the most important factors in the process is the difference in pressure between the space enclosed about the heating rod and the layer of quartz. M. G. Moore

A50-11A METALLURGICAL LITERATURE CLASSIFICATION

A. E. S.

Automatically annealed glass sheet. I. I. KITAIGORODSKII AND N. V. NIKOLSKII. Russ. 56,936, April 30, 1940. 32a. 30.—The glass sheet is made of three or more layers of glass having different coefficients of expansion. These layers are either drawn simultaneously from the melt or superimposed one upon the other. In the latter case, this is done at a temperature at which the respective layers are soft. M.Ho.

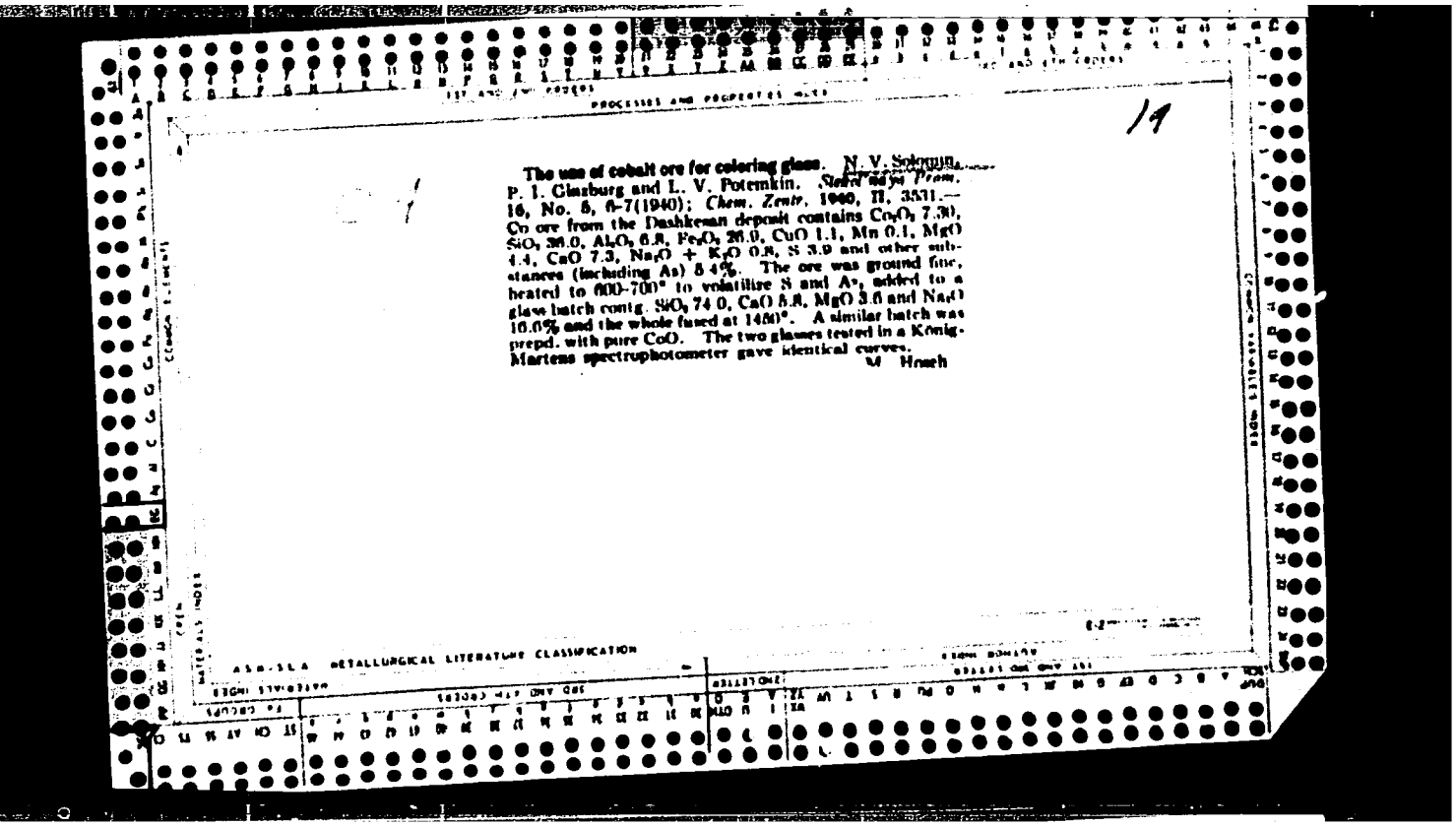
Use of cobalt ore for coloring glass. N. V. Solomin, P. I. Ginzburg, and L. V. Potemkin. *Steklo i Keram. Prom.*, 1960, No. 5, pp. 6–7; *Chem. Zentr.*, 1960, II, 3531; *Chem. Abs.*, **36**, 3005 (1942).—Co ore from the Dashkesan deposit contains Co_2O_3 7.30, SiO_2 30.0, Al_2O_3 6.8, Fe_2O_3 26.9, CuO 1.1, Mn 0.1, MgO 4.4, CaO 7.3, $Na_2O + K_2O$ 0.8, S 3.9, and other substances (including As) 5.4%. The ore was ground fine, heated to 600–700° to volatilize S and As, and added to a glass batch containing SiO_2 74.0, CaO 5.8, MgO 3.6, and Na_2O 16.6%; the whole was fused at 1480°. A similar batch was prepared with pure CuO. The two glasses tested in a König-Martens spectrophotometer gave identical curves.

SOLOMIN, N.V.

Laboratory of the Moscow Glass Works, People's Commissariat of Electirc Power Plants and Electrical Industry, (1939)

"The Viscosity and Structure of Molten Quartz Glass."

Zhur. Fiz. Khim., Vo. 14, No.2, 1940.



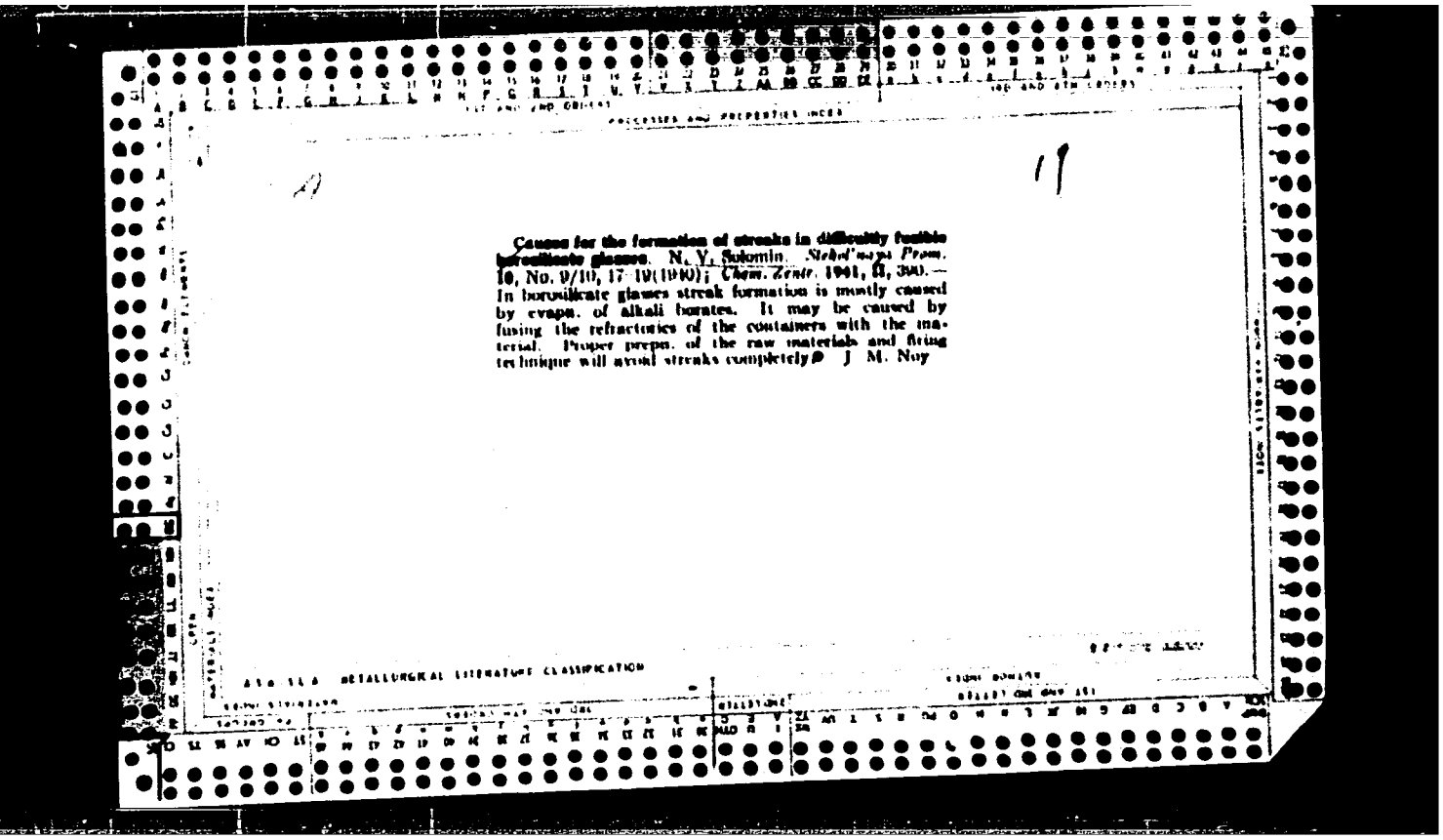
PROCESSES AND PROPERTIES

19

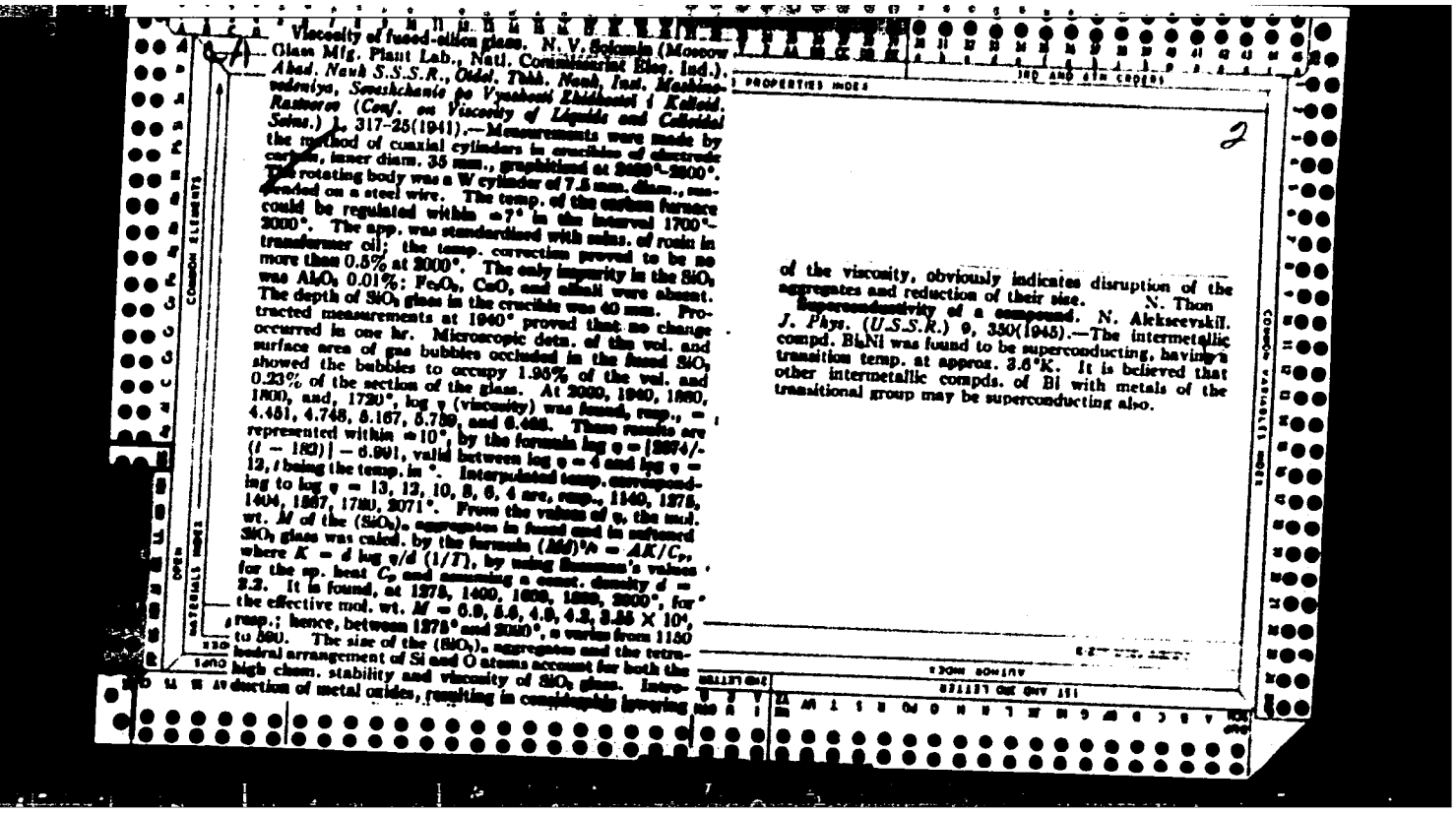
The use of cobalt ore for coloring glass. N. V. Sokrovin, P. I. Ginzburg and L. V. Potemkin. *Steklo i Keram.* 16, No. 5, 6-7(1940); *Chem. Zentr.*, 1940, II, 3531.—Co ore from the Dashkesan deposit contains Co_2O_3 7.30, SiO_2 38.0, Al_2O_3 6.8, Fe_2O_3 26.0, CuO 1.1, Mn 0.1, MgO 4.4, CaO 7.3, $Na_2O + K_2O$ 0.8, S 3.9 and other substances (including As) 8.4%. The ore was ground fine, heated to 600-700° to volatilize S and As, added to a glass batch contg. SiO_2 74.0, CaO 8.8, MgO 3.6 and Na_2O 10.0% and the whole fused at 1450°. A similar batch was prepd. with pure CoO. The two glasses tested in a König-Martens spectrophotometer gave identical curves.

M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



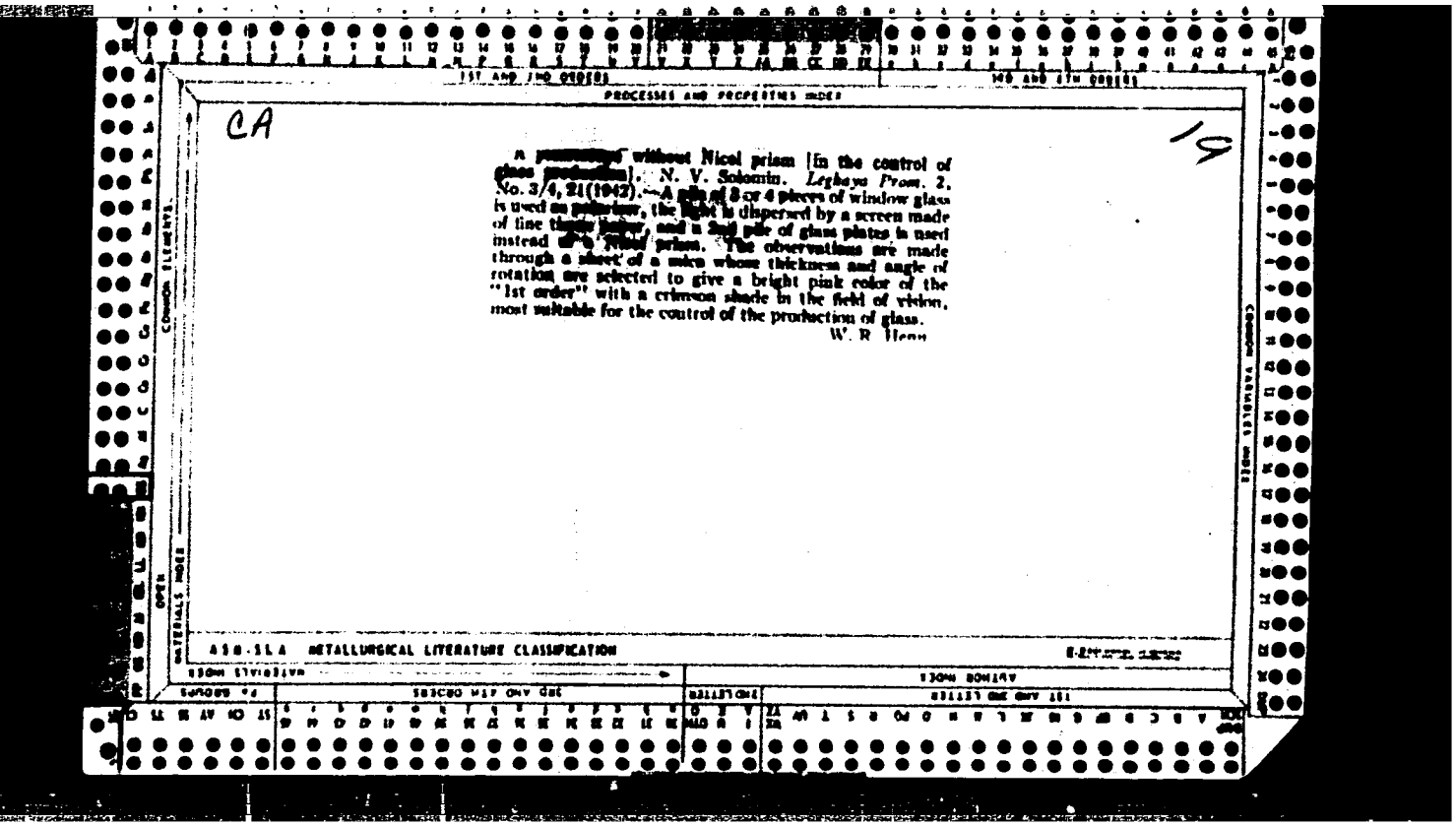
Causes for the formation of streaks in difficultly fusible borosilicate glasses. N. V. Solomin. *Nekot'orye Prom. Ib*, No. 9/10, 17–19(1940); *Chem. Zentr.* 1941, II, 380.—In borosilicate glasses streak formation is mostly caused by evapn. of alkali borates. It may be caused by fusing the refractories of the containers with the material. Proper prepn. of the raw materials and firing technique will avoid streaks completely. J. M. Noy



Viscosity of fused-silica glass. N. V. Solomin (Moscow Glass Mfg. Plant Lab., Natl. Commissariat Elec. Ind.). *Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk, Inst. Mashinovedeniya, Soveshchanie po Vyazkosti Zhidkostei i Kolloid. Rastvorov (Conf. on Viscosity of Liquids and Colloidal Solns.)* 1, 317–25(1941).—Measurements were made by the method of coaxial cylinders in crucibles of electrode carbon, inner diam. 35 mm., graphitized at 2600°–2800°. The rotating body was a W cylinder of 7.5 mm. diam., suspended on a steel wire. The temp. of the carbon furnace could be regulated within ±7° in the interval 1700°–2000°. The app. was standardized with solns. of rosin in transformer oil; the temp. correction proved to be no more than 0.5% at 2000°. The only impurity in the SiO_2 was Al_2O_3 0.01%; Fe_2O_3, CaO, and alkali were absent. The depth of SiO_2 glass in the crucible was 40 mm. Protracted measurements at 1940° proved that no change occurred in one hr. Microscopic detn. of the vol. and surface area of gas bubbles occluded in the fused SiO_2 showed the bubbles to occupy 1.95% of the vol. and 0.23% of the section of the glass. At 2000, 1940, 1880, 1800, and, 1720°, log η (viscosity) was found, resp., = 4.451, 4.748, 5.167, 5.739, and 6.468. These results are represented within ±10°, by the formula $\log \eta = [2974/(t - 182)] - 6.991$, valid between $\log \eta = 4$ and $\log \eta = 12$, t being the temp. in °. Interpolated temp. corresponding to $\log \eta = 13, 12, 10, 8, 6, 4$ are, resp., 1140, 1275, 1404, 1567, 1780, 2071°. From the values of η, the mol. wt. M of the $(SiO_4)_n$ aggregates in fused and in softened SiO_2 glass was calcd. by the formula $(Mf)^2A = AK/C_p$, where $K = d \log \eta/d(1/T)$, by using Eucken's values for the sp. heat C_p and assuming a const. density d = 2.2. It is found, at 1275, 1400, 1600, 1880, 2000°, for the effective mol. wt. M = 6.0, 5.6, 4.9, 4.2, 3.55×10^4, resp.; hence, between 1275° and 2000°, n varies from 1150 to 590. The size of the $(SiO_4)_n$ aggregates and the tetrahedral arrangement of Si and O atoms account for both the high chem. stability and viscosity of SiO_2 glass. Introduction of metal oxides, resulting in considerable lowering of the viscosity, obviously indicates disruption of the aggregates and reduction of their size. N. Thon

Superconductivity of a compound. N. Alekseevskii. *J. Phys. (U.S.S.R.)* 9, 330(1945).—The intermetallic compd. $BiNi$ was found to be superconducting, having a transition temp. at approx. 3.6°K. It is believed that other intermetallic compds. of Bi with metals of the transitional group may be superconducting also.

Solomin, N. V. DETERMINATION OF REFRACTORINESS OF CLAYS IN GLASS WORKS *Legkaya Prom.*, 2 [1-2] 13-17 (1942).—A new method for determining the refractory properties of mixtures for glass pots and glassmelting furnaces is described. It consists in determining the viscosity at the desired temperature. The rectangular specimen is placed on 2 knife-edge supports within a specially constructed furnace. The test piece can be either green or fired. The temperature is raised at a rate of 7°/min. if the test piece was previously fired. When the test temperature is reached it is held for 10 min., then a weighed rod is lowered onto the test piece. The displacement of the rod as the test piece sags is determined by reading a graduated scale by means of a microscope, simultaneously timing the changes with a stopwatch. The viscosity is calculated from $V = 81.8\ pl^3 : ch^3f$, where V is the viscosity, p is the load (the weight of the rod) in gm., l is the distance between the test piece support, z is the time in seconds it took the rod to descend f cm., c and h are the width and height of the test piece. The apparatus is described in detail.

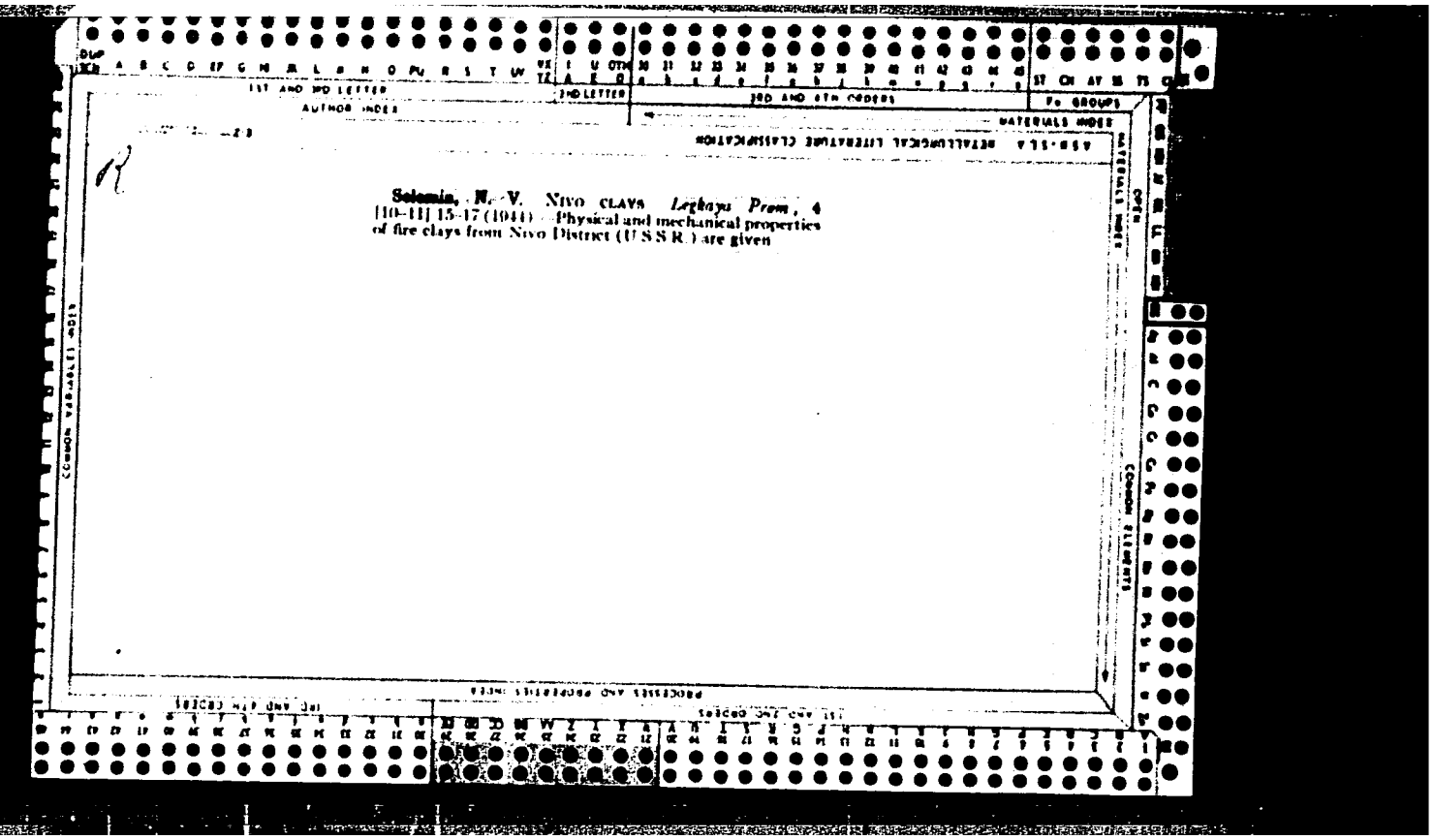


CA

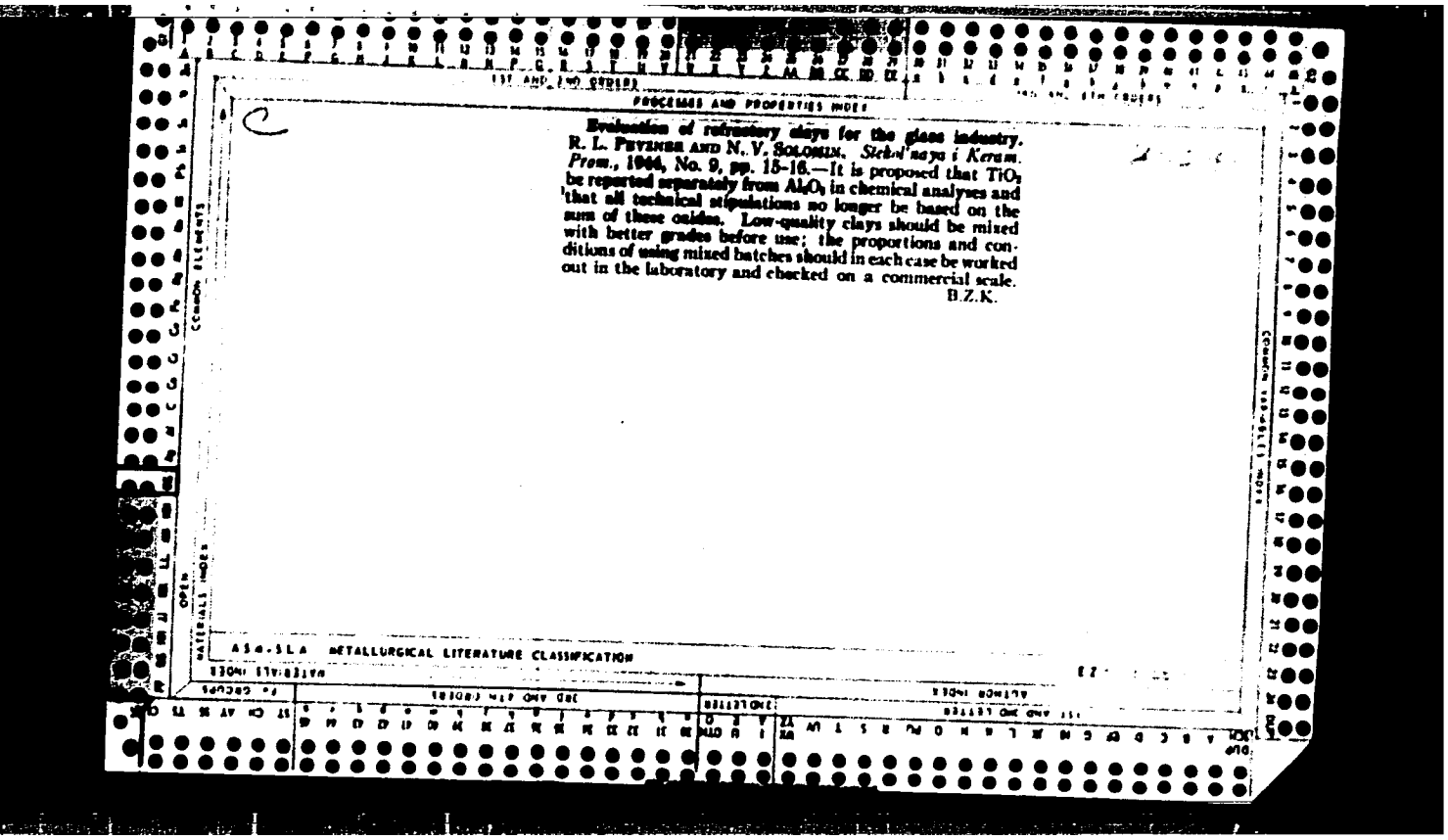
19

A [redacted] without Nicol prism [in the control of glass production]. N. V. Solomin. *Leghaya Prom.* 2, No. 3/4, 21(1942).—A pile of 3 or 4 pieces of window glass is used as polarizer, the light is dispersed by a screen made of fine thread [redacted], and a 2nd pile of glass plates is used instead of a Nicol prism. The observations are made through a sheet of a mica whose thickness and angle of rotation are selected to give a bright pink color of the "1st order" with a crimson shade in the field of vision, most suitable for the control of the production of glass.

W. R. Henn



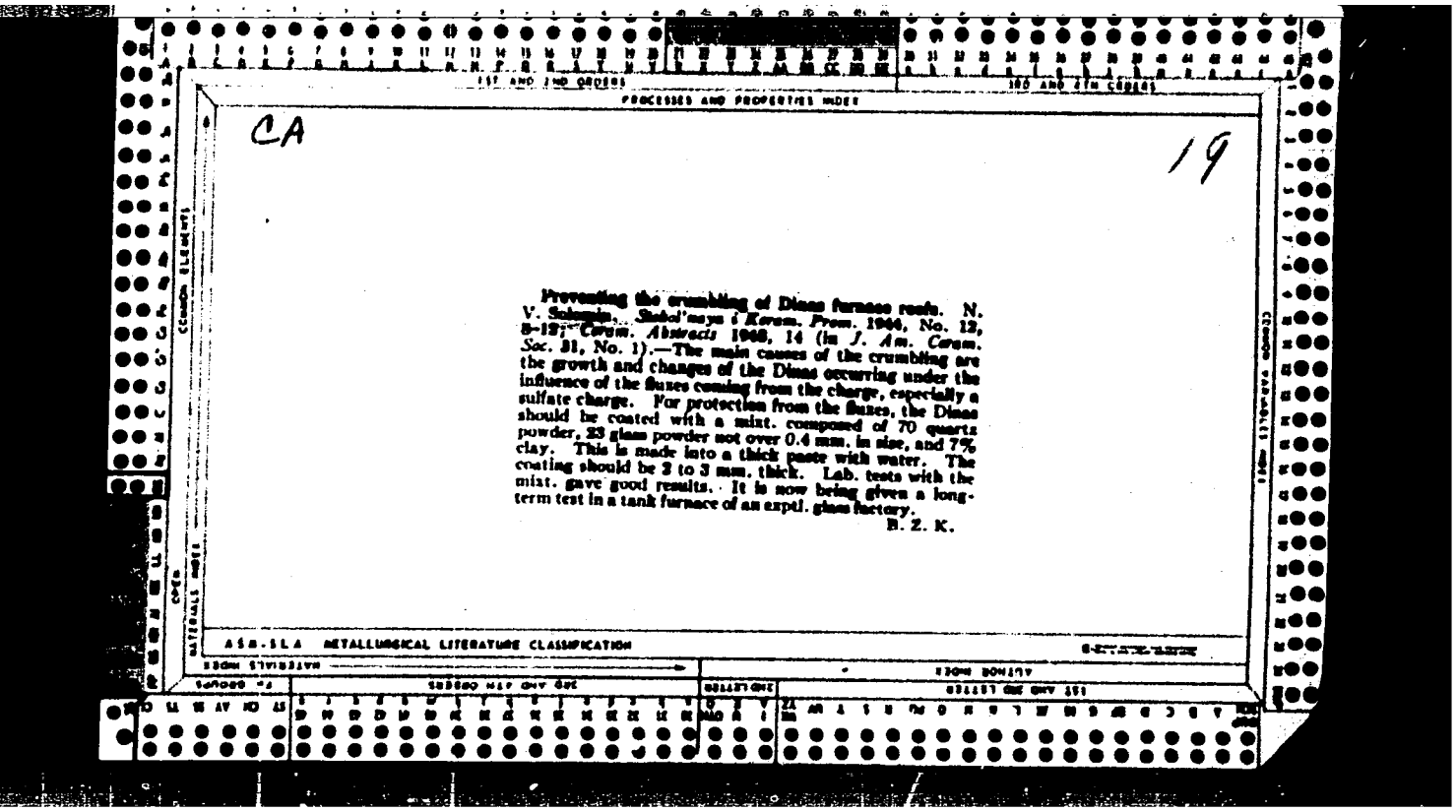
Solomin, N. V. Nivo clays. *Legkaya Prom.*, 4 [10-11] 15-17 (1944). Physical and mechanical properties of fire clays from Nivo District (U.S.S.R.) are given



PROCESSES AND PROPERTIES INDEX

Evaluation of refractory clays for the glass industry. R. L. Pevzner and N. V. Solomin. *Steklo'naya i Keram. Prom.*, 1964, No. 9, pp. 15–16.—It is proposed that TiO_2 be reported separately from Al_2O_3 in chemical analyses and that all technical stipulations no longer be based on the sum of these oxides. Low-quality clays should be mixed with better grades before use; the proportions and conditions of using mixed batches should in each case be worked out in the laboratory and checked on a commercial scale.
B.Z.K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



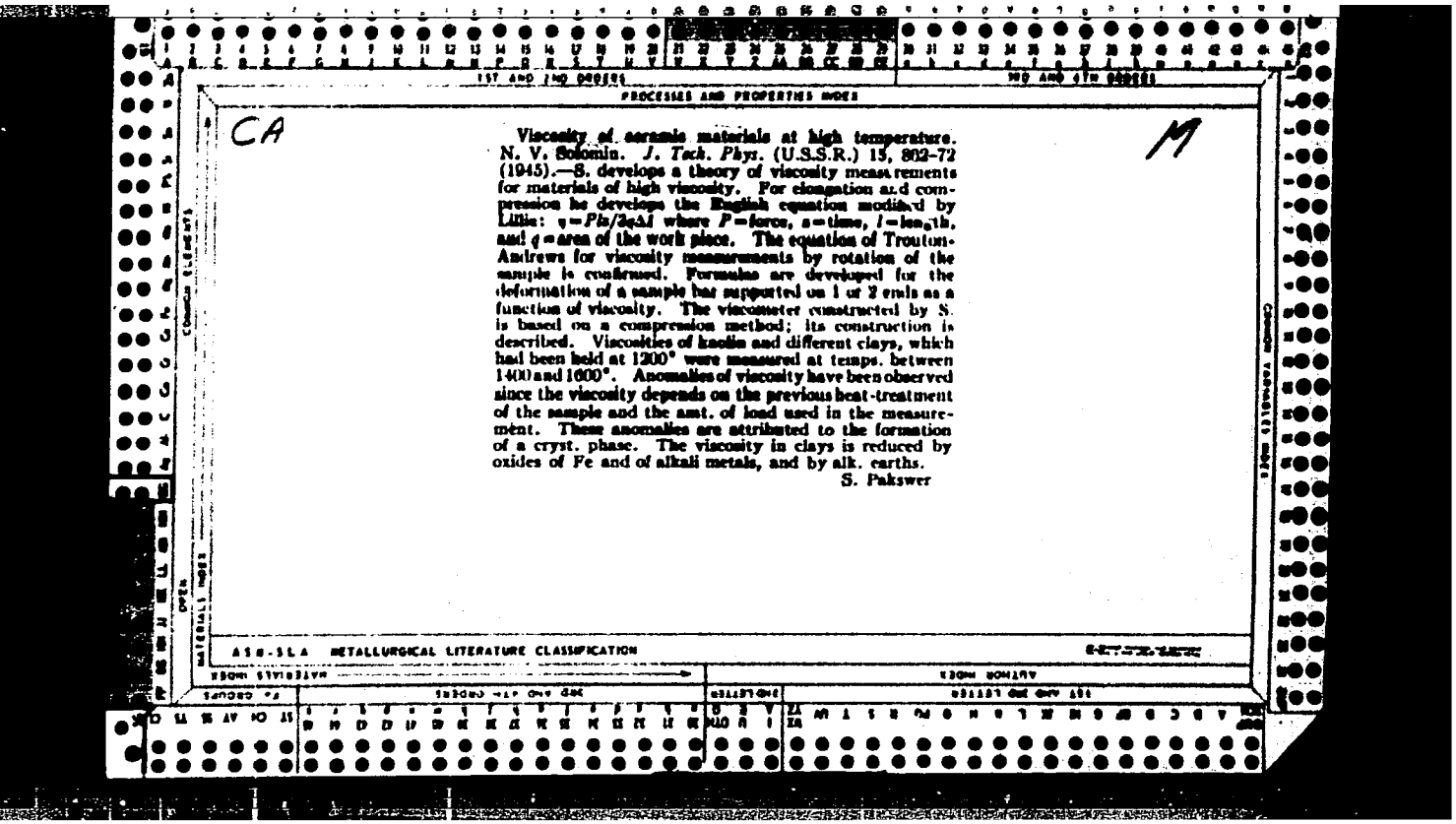
CA

19

Preventing the crumbling of Dinas furnace roofs. N. V. Solomin. *Stekol'naya i Keram. Prom.* 1946, No. 12, 8-12; *Ceram. Abstracts* 1948, 14 (in *J. Am. Ceram. Soc.* 31, No. 1).—The main causes of the crumbling are the growth and changes of the Dinas occurring under the influence of the fluxes coming from the charge, especially a sulfate charge. For protection from the fluxes, the Dinas should be coated with a mixt. composed of 70 quartz powder, 23 glass powder not over 0.4 mm. in size, and 7% clay. This is made into a thick paste with water. The coating should be 2 to 3 mm. thick. Lab. tests with the mixt. gave good results. It is now being given a long-term test in a tank furnace of an expl. glass factory.

B. Z. K.

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

CA

M

Viscosity of ceramic materials at high temperature. N. V. Solomin. *J. Tech. Phys.* (U.S.S.R.) 15, 802–72 (1945).—S. develops a theory of viscosity measurements for materials of high viscosity. For elongation and compression he develops the English equation modified by Lillie: $\eta = Pls/2q\Delta l$ where P = force, s = time, l = length, and q = area of the work piece. The equation of Trouton-Andrews for viscosity measurements by rotation of the sample is confirmed. Formulas are developed for the deformation of a sample bar supported on 1 or 2 ends as a function of viscosity. The viscometer constructed by S. is based on a compression method; its construction is described. Viscosities of kaolin and different clays, which had been held at 1200° were measured at temps. between 1400 and 1600°. Anomalies of viscosity have been observed since the viscosity depends on the previous heat-treatment of the sample and the amt. of load used in the measurement. These anomalies are attributed to the formation of a cryst. phase. The viscosity in clays is reduced by oxides of Fe and of alkali metals, and by alk. earths.

S. Pakswer

A 1 8 - 5 L A METALLURGICAL LITERATURE CLASSIFICATION

SOLOMIN, N. V.

"High-Temperature Investigation of Ceramic Raw Materials and Refractories for the Glass Industry." Sub 15 Oct 47, All-Union Sci Res Inst of Mineral Raw Materials

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55